INDEX.

[*For Alphabetical List of Subjects, except Patents, see* GENERAL INDEX *on p.* xii.]

Editorial Notes—Gas, Lighting, &c.

Accounts of the Metropolitan Gas Companies for 1884, The, 665
Alliance Gas Company, The, and the Dublin Corporation, 238
Amalgamation of Gas Companies in New York, 618
Arbitration, The Law of, 993
Armstrong, Professor, and the Destructive Distillation of Coal, 949
Australia, The Legal Status of Gas Companies in South, 54
Balances, Useful Applications for Small, 1037
Benzolized Gas, Mr. F. H. Varley on the Use of, 667
Birmingham Corporation Gas Supply, 238, 335
Blackwood's Magazine on Gas Stocks and other Investments in 1884, 335
Board of Trade—
  Gas Testing in the Metropolis, 478
  Provisional Order Financial Clauses, 950
  Returns as to Statutory Gas Undertakings in the United Kingdom, 53, 571
Boston (U.S.A.), Gas Affairs in, 99, 526
Botley, Mr. C. E., on the Lighting of Railway Carriages, 287
Bradford Corporation, Proposed Acquisition of Private Gas Works by the, 478
Bramwell, Lord, and the Arbitrations Bill, 993
Bramwell, Sir F., on Inventions, 97
Bristol Gas Company, The Affairs of the, 382, 526
Brussels, The Day Consumption of Gas in, 430
Carbonic Acid Gas, A New Way of Getting Rid of, 431
Carlisle, The Gas Exhibition in, 710
Chancellor of the Exchequer, The, on the Taxation of Gas, 810
City of London, The Public Lighting of the, in 1884, 710
Coal Mines, French Opinion on the Possible Exhaustion of, 855
Coal Supply, The Possible Exhaustion of the, 666, 711, 762, 855
Coal, The Demand for, for Gas Production, 145
Commercial Gas Company—
  Deficient Quality of Gas, 334
  Half Yearly Meeting, 618
  Half Yearly Report and Accounts, 570
Commissioners of Sewers, Report to the, on the Public Lighting of the City of London in 1884, 710
Contract Competitions, 527
Cornuault, M., on the Gas Consumption of Paris, 666
Croydon Gas Works, Abandonment of the Proposal to Purchase the, by the Corporation, 286
Cutting Off Gas, The Right of Entry for, 238
Day Consumption of Gas, 430
Delahaye, M., on the Possible Exhaustion of Coal Mines, 855
Denayrouze, M., Suggested Prizes for the Encouragement of Invention, 99
Dibdin's, Mr. W. J., Report to the Metropolitan Board of Works on Standards of Light, 570, 762
Differential Prices for High and Low Pressure Gas in Brussels, 146
Directors, An Outcry against, 617
Dover Gas Company—
  Provisional Order of the, 238, 711
  The Corporation and the, 98
Dublin Corporation, The, and the Alliance Gas Company, 238
Dukinfield and Denton Joint Gas Undertaking, The Dissolution of the, 382, 1038
Dundee, The Gas Supply of, 1139
Evolution of Machines and Processes, The, 477
Field's, Mr., Analysis of Gas Accounts, 1039
Fog, The Cost of a, in London, 191
Fuel Gas Extraordinary, 147
Gas Companies in South Australia, The Legal Status of, 54
Gas Cooking Competition, A, 1199
Gas Institute—
  Annual Meeting of the, in Manchester, 190, 527, 950, 1085
  New Rules of the, 853
  Newspapers on Mr. Newbigging's Address, 1139
  Papers Read at the Manchester Meeting, 1137, 1197
  Suggested Premiums for Essays on Economizing Coal, 666, 711, 762
  Suggestions for Papers, 431
Gas Legislation, Innovations in, 950
Gas Manufacture and the International Inventions Exhibition, 901
Gas Manufacture, Mr. J. A. Wanklyn on, 1198
Gas Rental, The Cost of Collecting, 54
Gas Stocks and other Investments, The Value of, in 1884, 335
Gas Stoves, The System of Hiring out, 709
Gaslight and Coke Company—
  Appointment of Mr. J. O. Phillips as General Manager, 1199
  Cheap Gas for Trade Purposes, 237
  Charges for Public Lighting, 146
  Half Yearly Meeting, 286
  Half Yearly Report and Accounts, 189
  Steam Roller Case, 526, 810, 994, 1198
Glasgow Gas, The Quality of, 902
Haywood, Mr. W., on the Lighting of the City of London in 1884, 710
Imperial Continental Gas Association, The, and their Electric Light Undertaking in Vienna, 1086
Instruction, Popular, in the Uses of Gas, 239
Inventions Exhibition, The International, 191, 854, 901
Inventions, Sir F. Bramwell on, 97
Lamp Posts, The Design and Utilization of, 994
Lectures on the Use of Gas, The Value of, 239
Leicester Corporation Gas Supply, 526
Lever, Mr. Ellis, on the Economical Use of Coal, 666, 711, 762
Lloyd, Mr. F. J., on the Value of Sulphate of Ammonia as a Manure, 903
M'Allum, Mr. C. D., on Sulphate of Ammonia, 811
Machines and Processes, The Evolution of, 477
Manchester Corporation Gas Supply, 854
Manchester District Institution of Gas Engineers, The Meeting of the, 383
Metropolitan Board of Works—
  Dibdin's, Mr. W. J., Report on Standards of Light, 570, 762
  Testing of Gas, 238, 383, 478
Metropolitan Gas Companies, The Work of the, in 1884, 665
Municipal and Sanitary Engineers, Meeting of the Association of, 1198
Murdoch Memorial, The Proposed, 995
Newcastle and Gateshead Gas Company, Action against the, 147
New York Gas Companies, Amalgamation of, 618
New York, Gas Legislation in, 618, 666, 711, 994
Nitrate of Soda, The Use of, as Manure, 619
North British Association of Gas Managers—
  Gas Supply in Scotland in 1884, 762
  Prize Essays, 902
  Proposed Memorial to Murdoch, 995
North of England Gas Managers' Association, The Meeting of the, 811
Nottingham Corporation Gas Supply, 54, 1038
Oldham, Smoke Prevention (?) at, 98
Over-Production and its Remedy, 1087
Paris Gas Company, Accounts of the, for 1884, 811
Paris, The Gas Consumption of, 666
Paris, The Gas Question in, 430
Phillips, Mr. J. O., Appointment of, as General Manager of The Gaslight and Coke Company, 1199
Photometrical Standards, A Question of, 570, 762
Portable Photometer, Gas Testing by the, 238, 383
Provisional Orders, Innovations in the Financial Clauses of, 950
Private Bill Legislation, Mr. Sellar's Bill for the Amendment of, 333, 381
Private Gas Works, Proposed Acquisition of, by the Bradford Corporation, 478
Prizes for Essays on the Use of Nitrate of Soda as Manure, 619
Public Lighting in the Chartered Company's District, 146
Quality *versus* Cheapness of Gas, 1086
Railway Carriages, The Lighting of, 287
Redhill Gas Works, The Rating of the, 382
Retrospect of the Year 1884, 9
Returns, The Parliamentary, as to Gas Undertakings in the United Kingdom, 53, 571
Rotherham, The Cost of Collecting Gas Rental at, 54
Rotherhithe, Gas Explosion in, 761, 810, 854
Scotland, Statistics of Gas Supply in, 762
Services, The Right to Connect Gas Pipes to, 1138
Sellar's, Mr., Bill for the Amendment of Private Bill Legislation, 333, 381
Sliding Scale Companies, An Important Case for 146, 190
Sliding Scale, Corporations and the, 570
Smoke Abatement, Proposed Legislation for, 569
Smoke Prevention (?) at Oldham, 98
Socialistic Trading as Exemplified by Corporations, 525
Société Technique, The Meeting of the, 190
Soot and Smoke, Press Writers on, 190
South Foreland Lighthouse Experiments, 618
South Metropolitan Gas Company—
  Half Yearly Meeting, 334
  Half Yearly Report and Accounts, 285
South-West of England District Association of Gas Managers, The Meeting of the, 479
Spectator, The, on the Use of Steam Rollers, 994
Stalybridge Gas Purchase Bill, The, 710
Steam Rollers, Damage to Gas Mains by the Use of, 526, 810, 994, 1198
Street Lighting, Mr. W. S. Crimp on, 1198
Subways, The Use and Cost of, 809
Sugg *v.* Bray, The Judgment in, 902
Sulphate of Ammonia and Nitrate of Soda, The Value of, 619, 811, 903
Taxation of Gas, Suggested, 810
Tenderer, An Action by a Lowest, 527
Trading, Socialistic, as Exemplified by Corporations, 525
United States, Gas Supply in the, 526, 1038
Valon's, Mr., Hypothesis, The End of, 429
Varley, Mr. F. H., on the Use of Benzolized Gas, 667
Vienna, Gas and Electric Lighting in, 1086
Wanklyn, Mr. J. A., on Gas Manufacture, 1198
West Ham Gas Company—The Right to Connect Pipes to Gas Services, 1138
Wigan, Gas Affairs in, 98
Worth, Alderman, on the Rating of Nottingham, 1038
Wybauw, M., on Differential Prices for High and Low Pressure Gas in Brussels, 146
Year 1884, A Retrospect of the, 9.

Water and Sanitary Affairs.

Accounts of the London Water Companies, Parliamentary Return as to the, 1199
Assessment of the Sheffield Water Company's Property, 951
Attfield, Professor, on Water and Water Supplies, 479
"A. B. C." Process, Dr. C. M. Tidy and Professor Dewar on the, 1140
Birmingham Corporation Water Supply—The Litigation with Mr. W. B. Smith, 480
Bramwell, Lord, and Sir W. Harcourt, 335

Bramwell, Sir F., on Water Supply, 99
Bristol Water Company, Action by Mr. Uren against the, 668
Buxton, Treating Sewage by Lime at, 712, 812, 951
Camperdown, The Earl of, and the Reporting of Proceedings in Parliamentary Committees, 712, 763
Canterbury, Polluted Wells in, 100, 148
Chalk, The Pollution of a Well in the, at Brentford, 336
Chelsea Water Company, Meeting of the, 1140
Cholera, Outbreak of, at Valencia, 1040
Cholera Rumours and Cholera Precautions, 996
Clyde, Dr. Wallace on the Pollution of the, 1200
Constant Supply, The Extension of, in the Metropolis, 99, 620
Dalton's, Mr. W. H., Criticisms of the Projected Schemes for Improving the Water Supply of London, 192
Dilke, Sir Charles, and the Metropolis Management Acts Amendment Bill, 904, 1039
East London Water Company, 619, 620, 1139
Enfield, Suspected Wells at, 100
Ferran, Dr., on the Prevention of Cholera by Inoculation, 1040
Firth, Mr. J. F. B.—
  Address on the London Water Supply, 951
  Return as to the London Water Companies, 667, 712, 763
  Water Works Clauses Act, 1847, Amendment Bill, 479
Fittings, Alteration of, for Constant Supply, 239
Folkestone, Water Rating Dispute at, 480
Frankland, Dr. P., on the Selection of Water for Domestic Supply, 335
Frankland's, Dr. E., Annual Report on the Metropolis Water Supply, 619
Galton, Captain Douglas, on the Disposal of the Metropolitan Sewage, 288
Globe, The, on the London Water Companies and the Regulation of Powers Bill, 903
Goschen's, Mr., Address at the Eighty Club, 479
Government of London Bill, The, 287
Grand Junction Water Company, 1087, 1140
Harcourt, Sir W., and Lord Bramwell, 335
Harrison's, Mr. J. T., Scheme for Improving the Water Supply of the Metropolis, 13, 55
Institution of Civil Engineers—
  Sir F. Bramwell's Address at the, 99
  Pole, Dr., on Water Supply, 431
Kent Water Company, The Bill of the, 191, 1087, 1139
Lambeth Water Company, 763, 951, 995
Local Authorities' Water Undertakings, The Rating of, 384
Local Government Board Inquiry on Constant Supply at the East End, 620
Lower Thames Valley Main Sewerage Scheme, The, 13, 55, 100, 572, 1088
Main Drainage Outfalls, The, and the State of the Thames, 856
Manchester Corporation Water Supply, 55
Metropolis Management Acts Amendment Bill, Sir Charles Dilke and the, 904, 1039
Metropolis Water Supply—
  Harrison's, Mr., Scheme for Improving the, 13, 55
  Radcliffe's, Dr., Scheme for Augmenting the, 147
  Reports on the Quality of the, 147, 571, 619, 1200
Metropolitan Board of Works—
  Annual Report, 855
  Metropolis Management Acts Amendment Bill, 904, 1039
  Sewage Purifying Operations at Crossness, 856
  Water Companies' Regulation of Powers Bill, 903
Metropolitan Water Companies, Statistics as to the, 667, 712, 763, 1199
Native Guano Company, The, 239, 1140
Pall Mall Gazette, The, on Water Questions, 99, 763
Pole, Dr., on Water Supply, 431
Pollution of Rivers, Prevention of the, 528, 1200
Pollution of Wells, The, 100, 148, 336
Public Houses, The Rating of, for Water Supply, 432, 995
Radcliffe's, Dr., Scheme of Water Supply for the Metropolis, 147
Retrospect of the Year 1884, 12
Richmond, Well Boring Operations at, 239, 668
Rivers, The Pollution of, 528, 1200
Sanitary Conference, The International, and Precautions against Cholera, 1039
Sewage, The Disposal of Metropolitan, 239, 288, 856
Sheffield Water Company's Property, The Assessment of the, 951
Society of Arts—Captain Galton on the Disposal of Metropolitan Sewage, 288
Southwark and Vauxhall Water Company, The, 191, 287, 1087, 1139
St. George's-in-the-East, The Provision of Constant Supply in, 620
State Antagonism to Private Enterprise, 479
Stock Exchange, The, and Mr. Firth's Return, 712
Stopcocks, The Provision of Exterior, 1139
Thirlmere Scheme, Commencement of the, 55
Thresh's, Dr., System of Treating Sewage by Lime, 712, 812, 951
Tidy, Dr., on the "A. B. C." Process, 1140
Uren, Mr., and the Bristol Water Company, 668
Valuation Act, The Metropolitan Water Companies and the, 13, 383, 431, 763
Wallace, Dr., on the Pollution of the Clyde, 1200
Water Companies (Regulation of Powers) Bill, The, 384, 527, 571, 712, 763, 811, 1039
Water Works Clauses Act, 1847, Amendment Bill, The, 335, 383, 479, 812, 855
Wells, The Closing of Private, 100, 148
Well, The Pollution of a, in the Chalk, 336
West Middlesex Water Company, The, and the Coleman Case, 995
Year 1884, Retrospect of the, 12

Essays, Commentaries, and Reviews.

Analysis of Gas, 815
Boston (U.S.A.), Gas Affairs in, 14
Bradford Road (Manchester) Gas Works, The Management of the, 484
British Association of Gas Managers, The Founders of the, 956
British Gas Undertakings, 57
Central Column Counterbalanced Gasholder, A Design for a, 668
Clark Gas Lamp, The, at the Langham Hotel, 435, 484
Clifford's, Mr., Account of Private Bill Legislation, 1202
Coal Gas as a Narcotic, 385
Coal Gas, The Illuminating Constituents of, 148, 193
Coal Supply, The Duration of the British, 150
Coal, The Spontaneous Combustion of, 241
Colne Vale Gas Undertaking, Further Working Results of the, 670
Cornuault, M., on the Gas Supply of London and Paris, 906, 954
Crystal Palace Electric and Gas Exhibition, 1882-3—
  Accounts of the Gas Section Committee, 816
  Complimentary Dinner to Mr. G. Livesey, 999
  Review of the Report on the Gas Section, 384, 432, 482, 529, 620, 672, 716, 764, 814, 858, 907, 954, 997, 1042, 1088
Day Consumption of Gas, The, 58
Destructive Distillation, 1201
Directory, The Gas and Water Companies', for 1885, 999
Electric Lighting Memoranda—
  Aboilard's, M., Carriage Lights, 573
  Anglo-American Brush Electric Light Corporation, Meeting of the, 241
  American Gaslight Journal and Mr. Preece, 337
  Arc *versus* Incandescent Lighting, 288, 815
  Australasian Electric Light and Power Company, The Affairs of the, 56, 481, 531
  Balls, Abandonment of Electric Lighting at, 670
  Birmingham Incandescent Electric Lighting Company's Bill, 14
  Brush Electric Light Corporation, The Affairs of the, 194
  "B. T. K." System, The, in the South Kensington Subway, 996
  Chelsea Provisional Order, The, 56
  City of London, A "Model" Electric Lighting Installation in the, 1201
  Coal Fire, An Electric Imitation of a, 195
  Colchester, The Incandescent Lighting Experiment at, 337, 387, 573
  Concentrated *versus* Distributed Lighting for Shop Windows, 101
  Coope's, Mr. O. E., Private Experiment, 194
  Dawson *v.* The Phœnix Electric Light Company, 858
  Disappointed Electricians, The Newspaper Complaints of, 14
  Dynamicables, Deputation of, to the Board of Trade, 241
  Edison Electrical Meter, The, 997
  Edison Electric Light Company and the Infringement of their Patents, 1042, 1201
  Electric Lighting Act—
    Lord Salisbury and the, 952
    Suggested Amendment of the, 531, 572, 714
  Electrical Review, The—
    On Private Electric Lighting, 858
    On the Commercial Side of Electric Lighting, 386
  Engineer, The, and Masthead Electric Lighting, 531
  Exhibition, A French Electrical, 714
  Failure of the Electric Light at Temesvar, 56
  Fire Offices and Electric Light Installations, 573
  Fleming, Dr., on Incandescent Electric Lamps, 952
  Forbes's, Professor, Report on the "B. T. K." System in the South Kensington Subway, 996
  French Electrical Exhibition, A, 714
  Funck, Mr., and Lighthouse Illumination, 101
  Gas *versus* Electric Light—
    For Streets, 815
    Popular Comparisons of, 13
  Gaulard and Gibbs Secondary Generators, A New Experiment with the, 714
  Hammond Electric Light Company—
    Winding up of the, 1140
    Position of the Contracts of the, 1141
Electric Lighting Memoranda (*continued*)—
  Heating by Electricity, 149
  House of Commons Committee, The Report of the, on Overhead Wires, 904
  Incandescent Electric Lamps, Dr. Fleming on, 952
  Incandescent Lamp Patents in America, 1042, 1201
  Insurance Offices and Electric Light Installations, 573
  Inventions Exhibition, Electric Lighting at the, 764, 996
  Irish Times Office, An Electric Light Installation in the, 952
  Iron and Steel Works, Electric Light for, 56
  Johnson's, Mr. E. H., Imitation Coal Fire, 195
  Lighthouses, Illumination of, 101
  Masthead Electric Lighting, 531
  Maxim-Weston Company, The Affairs of the, 337, 386
  Mechanical World, The, on Gas *versus* Electric Light, 13
  Methven Standard, The, for the Photometry of Electric Lights, 1201
  Middlesbrough, An Abortive Undertaking at, 56
  New Orleans Exhibition, The, 289
  Newspaper Complaints of Disappointed Electricians, 14
  New York Sun, The, and Electric Lighting, 101
  New York—
    Cost of Electric Lighting in, 1200
    Danger to Health from the Opening of the Streets of, 905
    The Edison Electrical Meter in, 997
  Overhead Wires, Agitation against, 764, 904
  Paddington Station, The Lighting of, 481
  Pilsen-Joel Company, The Affairs of the, 670
  Police Constables, Portable Electric Lamps for, 14, 149, 289
  Preece, Mr. W. H.—
    American Gaslight Journal and, 337
    Domestic Incandescent Electric Lighting, 1042
    Wimbledon Electric Lighting Experiment, 764, 815, 858
  Primary Battery Delusion, Resuscitation of the, 100
  Private Carriage Lighting, 573
  Private Electric Lighting, An Experiment in, 858
  Progress of Electric Lighting in 1884, 241
  Provincial Brush Electric Light Company, Liquidation of the, 1141
  Railway Station *versus* District Lighting, 481
  Railway Trains, The Lighting of, 149
  Relative Value of Arc and Incandescent Lighting, 288, 815
  Revue Industrielle on a Gigantic Tower Project, 338
  Search Lights for Policemen, 14, 149, 289
  Secondary Generators, A New Experiment with, 714
  Sellon, Mr. A., on Heating by Electricity, 149
  Shanghai, Abandonment of Electric Lighting in, 905
  Ships, The Lighting of, 670
  Shop Windows, Concentrated *versus* Distributed Lighting for, 101
  Skrivanow Battery, The, 289, 573
  South-Eastern Brush Company, The Affairs of the, 481, 530, 573
  South Kensington Subway, The "B. T. K." System in the, 996
  Strasburg Railway Station, The Lighting of the, 150
  Sydenham, Experiment in Domestic Lighting at, 905
  Temesvar, Failure of the Electric Light at, 56
  The Times and Primary Battery Delusions, 100
  Thurlow's, Lord, Committee and the Electric Lighting Act, 531
  Tower Project, A Gigantic, 338, 670
  Trevisan's Battery, 715
  Troop Ships, The Lighting of, 670
  Trouvé's, M., Electric Search Lights for Policemen, 149
  Varley's, Mr., Improved Arc Lamp, 815
  Wimbledon, Electric Lighting Experiment at, 764, 815, 858
  Wires and Gas Mains, Underground, in the United States, 1042
Electrical Machinery, A Specialist on, 102
Gas and Water Companies' Directory, The, for 1885, 999
Gas and Water Companies in the Money Market, 13, 56, 102, 151, 195, 243, 290, 338, 386, 432, 480, 528, 572, 622, 668, 713, 764, 812, 856, 904, 952, 996, 1040, 1088, 1140, 1200
Gas Consumers, Practical Hints for, 574
Gas Exhibitions, The Conduct of, 999
Gas Explosions, MM. Mallard and Le Châtelier on, 443
Gasholder, A Design for a Central Column Counterbalanced, 668
Gas Institute—
  Arrangements for the Meeting of the, 856
  Suggestions for Papers for the, 528
Gas Legislation for 1885, 240
Gaslight and Coke Company, The New Purifier and Purifier-House at the Nine Elms Station of the, 1041
Gas Pressure, The Automatic Regulation and Changing of, 484
Gas Supply of London and Paris, M. Cornuault on the, 906, 954

Greenwich, The South Metropolitan Gas Company's New Works at East, 480
Inventions Exhibition, The International, 573, 857, 905, 953, 998, 1043, 1141
Iron Industry, A New Application of Gas in the, 715
Livesey, Mr. G., Complimentary Dinner to, 999
Lord's Day, Gas Manufacture on the, 1041
Mallard and Le Châtelier, MM., on Gas Explosions, 434
Methane (Marsh Gas), The Luminosity of, 435
Metropolitan Gas Companies, The Accounts of the, for 1884, 671
Narcotic, Coal Gas as a, 385
Nature's Hygiene, 242
Newbigging's "Handbook," A New Edition of, 242
Oils, Dangerous, 621
Patents, One Year of Cheap, 101
Photometer, A New, for Diffused Light, 766
Private Bill Legislation, Mr. Clifford's Account of, 1202
Protest, A, 244
Provisional Orders, Gas and Water, for 1885, 337
Purifiers and Purifier House, The New, at the Nine Elms Station of The Gaslight and Coke Company, 1041
Radial Photometer and the Proposed Standards of Light, Further Notes on the, 713
Regenerative Gas Lamps, The Extended Use of, 435, 484
Servier, The late M., 1040
Siemens, Mr. F., A New Gas Lamp and Stove by, 531
Smoke Abatement Institution, The Annual Report of the Council of the, 192
Société Technique de l'Industrie du Gaz en France, 1089
South Metropolitan Gas Company's New Works at East Greenwich, 480
South-West of England District Association of Gas Managers, 387
Steam for Heating and Power in America, The Distribution of, 482
Water Gas, The Poisonous Qualities of, 812
Water Legislation for 1885, 289, 336

Notes.

Actinometer, A New, 338
Aqueous Vapour, The Absorption of Radiant Heat by, 860
Argand Burners, An Adjustable Cap for, 718
Asbestos Enamel, 244
Blast Furnace Gases, The Fuel Value of, 767
Boghead Cannel Coal, Additional Discoveries of, 908
Bower-Barff Process, The, and the Strength of Iron, 435
Cailletet, M., on the Liquefaction of Oxygen, 1000
Candle Balance, An Alarm, for Photometers, 1076
Carbon and Oxygen, The Effect of the Presence of Steam on the Combustion of, 672
Carbon Bisulphide in Water, Solubility of, 816
Carbon in Steel, The Condition of, 290
Carbonic Acid in Gas, A Test for, 767
Cements, The Hardening of, 152
Charcoal Kilns, The Production of Residuals from, 673
Chlorimeter, A New Form of, 1142
Clamond's, M., Gas Battery, 909
Clinker Concrete, The Strength of, 1142
Coal—
  Calorimetry of, 859
  Combustion Heat of, 1076
  Loss of Weight in, by Storeage, 1090
Coal and Pinewood Gas, 290
Coal Blocks, Compressed, for Use in Blast Furnaces, 338
Coal Gas Metallurgical Process, A, 290
Coal in Store, The Preservation of, 672
Coal Seams, &c., The Temperature of, 532
Coal Tar, New Colouring Matters from, 1143
Coal Tar Product, A New, 387
Coke Ovens, The Production of Residuals from, 1204
Dangerous Fluids, A Measuring Pipette for, 387
Dessins, M., on the Combustion of Explosive Mixtures formed with Coal Gas, 1000
Dilution, The Influence of, on the Heating Power of Coal Gas, 485
Edison, A Photometric Standard by, 956
Electric Currents, The Prevention of Fatalities from, 338
Electric Lighting—
  Loss of Energy in, 484
  New System of Domestic, 435
Explosive Mixtures, The Combustion of, formed with Coal Gas, 1000
Fire Damp, The Utilization of, 195
Friction, The Determination of, with Gases flowing through Pipes, 909
Galvanic Action upon Iron in Sand, 58
Gas Battery, A, 909
Gas Burner, A Safety, 622, 717
Gas Engine, The Cycle of the, 909
Gases, The Solidification of, 435
Gas Furnaces and Heating by Radiation, 767
Gas Generating Apparatus, A Laboratory, 244
Gasoline as a Fire Alarm, 574
Gas Pipes, A New Material for, 718
Heat and Light, A New Invention in the Production of, 1076
Heat in its Relation to Combustion, 817
Heating by Radiation, 767
Heavy Oil, A New Lamp for, 718
High Pressure Gas Distribution, 103
Hydraulic and Hand Riveted Joints, The Strength of, 1000
Hydraulic Main, Isbell's, 1090
Hydrocarbons, The Illuminating Power of, 484
Incandescent Electric Lamps, The Economical Working of, 622
Incandescent Electric Lighting, The Cost of, 1203
Incandescent Gas Light, A New, 816
Intense Lights, The Photometry of, 151
Intensity of Lights, The Visual Perception of Different, 435
Iron, The Action of Water upon, 387
Isbell's Hydraulic Main, 1090
Jablochkoff Primary Battery, The, 956
Lecture Demonstrations, Brilliant Light for, 244
Lifts and Hoists, Gas and Hydraulic Power for, 859
Lightning Flashes, The True Form of, 58
Lubricants, The True Value of, 673
Luminous Impressions, The Duration of, 485
Luminous Sensations, The Intensity of, 1203
Microbe Filter, A New, 387
Mortar, How to make Good, 103
Nordenfelt, Mr. T., on Wrought Iron Castings, 956
Optical Photometer, Dr. Gorham's, 58
Oxygen, The Liquefaction of, 1000
Paper, Production of Illuminating Gas from, 767
Photometer, A New Diffusion, 151
Photometers, An Alarm Candle Balance for, 1076
Photometric Standard by Edison, 956
Plaster, A Method of Hardening, 908
Primary Batteries, New, 58
Pyronaphtha, 14
Radiometer, The, as a Photometer, 485
Railway Carriages, Combined Gas and Electric Lighting for, 484
Rarefied Air Power, 956
Retort for Testing Gas Coals, A Small, 196
Revue Industrielle on M. Boudenot's Rarefied Air Power Scheme, 956
Roof, A Combination Tar and Slate, 574
Scheurer-Kestner, M., on the Combustion Heat of Coal, 1076
Schrabetz's Anti-Fluctuator, 195
Soda Works, Treating Residues from, 14
Solidification of Gases, The, 435
Steam Boilers—
  Explosive Energy of, 244
  Supposed Superheating of, 484
Steel Riveted Joints, The Proportions of, 1000
Stollwerk's Boiler Feed Purifiers, 195
Stove Blacking Iron Goods, A Cheap Method of 1076
St. Louis, The Wreck of a Gasholder at, 718
Sulphur of Coal, The Origin of the, 532
Sulphuretted Hydrogen, A New Device for Obtaining, 14
Sulphurous Acid, Aqueous Solutions of, 1142
Tangye Gas Engine, The, 1090
Vapour Motors, 103
Water Mains, Removing Incrustations from, by Chemical Treatment, 1090
Water Pipes, Iron Bound Wooden, 151
Wrought Iron Castings, 956
Wrought Iron, The Durability of, 816

Communicated Articles.

Air, The Heating of, and its Value in Regenerative Furnaces. By W. Gadd, C.E., 152
Air, The Rapid Heating of, and the Manner in which it Affects the General Method Adopted in the Construction of so-called Regenerator Furnaces for Heating Gas Retorts. By W. A. Valon, Assoc. M. Inst. C.E., M. Inst. M.E., 436
American Gaslight Association, The Twelfth Annual Meeting of the. By Our American Correspondent, 103, 196
Boston, Gas Affairs in. By Our American Correspondent, 486, 717, 769, 860
Carbonic Acid, Some Notes on the Removal of, from Coal Gas. By N. H. Humphrys, F.C.S., 1001
Carlisle Exhibition, Gas Appliances at the. By A Scotch Visitor, 768
Coal Supply, The Exhaustion of the. By W. Gadd, C.E., 575, 623
Gas, On the Employment of, for Cooking. By W. Ivison Macadam, F.C.S., F.I.C., 910, 958
Gas Stoves and Pure Air. By N. H. Humphrys, F.C.S., 245
Hydrogen, Note on the Occlusion of, by Zinc Dust and the Meteoric Iron of Lenarto. By Greville Williams, F.R.S., 485
Lime Process, Experiments on the, for the Purification of Coal Gas. By V. H. Veley, M.A., 957
New York City, Gas Affairs in. By Our American Correspondent, 532, 678, 1002, 1125
Paraffin Oil, The Manufacture of Gas from. By W. Ivison Macadam, F.C.S., F.I.C., 1204
Sulphate of Ammonia, The Value of, as a Manure. By F. J. Lloyd, F.C.S., 909
Trimethylamine and Pyrrol, On the Synthesis of, from Coal Gas; and on the Occlusion of Hydrogen by Zinc Dust. By Greville Williams, F.R.S., 15

Technical Record.

Adams, Professor, on the Lighthouse Experiments at the South Foreland, 250
Armstrong, Professor—
  Products from the Destructive Distillation of Coal, 960
  Products of the Manufacture of Gas from Petroleum, 1209
America, Natural Gas in, 199, 491
American Society of Gas Lighting—
  Gas Works Plant, Mr. A. B. Slater on the Relative Positions of, 16
  Seal in the Hydraulic Main, Mr. E. Vanderpool on the Removal of the, 107
Ammonia, The Production of, from the Nitrogen of Minerals, 294
Anderson, Mr. W., on the Conversion of Heat into Useful Work in the Gas Engine, 1045
Anthracene from Water Gas Tar, Mr. A. H. Elliott on, 197
Beilby, Mr. G.—
  A New Form of Gas Thermometer, 198
  Production of Ammonia from the Nitrogen of Minerals, 294
Bott, Dr. W., on Hempel's Methods of Gas Analysis, 817
Bramwell, Sir F., on the Progress of Invention, 104
Buchanan, Mr. G. S., on a Shadowless Gaslight Ventilator, 106
Caink's Automatic Pressure Changing Gas Governor, 961
Calcium, Sulphur Compounds of, 1045
Carbonic Acid, Effect of, on the Illuminating Power of Coal Gas, Mr. C. J. R. Humphreys on, 1143
Cheap Sperm, The Substitution of, for Standard Candles, 629
Chemical Society—
  Luminosity of Methane (Marsh Gas), Mr. L. T. Wright on the, 435
  Petroleum, The Products of the Manufacture of Gas from, Professors Armstrong and Miller on, 1209
  Sulphur Compounds of Calcium, Mr. V. H. Veley on, 1045
Chemical Theory of the Production of Illuminating Gas, The (*continued from preceding Volume*), 59, 107, 157, 250, 339, 393
Coke, The Density of, Mr. W. A. Tilden on, 61
Coking of Coal, The Early Efforts in the, and the Recovery of Bye-Products, 108
Coleman's, Mr. J. J., Thermometer for Registering Temperatures Below the Freezing Point of Mercury, 198
Crimp, Mr. W. S., on Street Lighting, 1204
Destructive Distillation, Some Aspects of, 675, 721
Dibdin, Mr. W. J., on Standards of Light—
  Paper read before the Society of Chemical Industry, 773, 863
  Report to the Metropolitan Board of Works, 576, 626, 673, 718
Dittmar's, Professor, Thalpotasimeter, 196
Elliott, Mr. A. H., on Anthracene from Water Gas Tar, 197
Fahnehjelm's Water Gas Incandescent Light, 1209
Fletcher, Mr. T., on the Use of Gas in the Workshop, 154
Foulis's, Mr. W., Regenerative Furnace for Heating Iron and Steel Plates, 17
Gas Analysis, Hempel's Methods of, 817
Gas Governor, Caink's Automatic Pressure Changing, 961
Gas Institute, The—Proceedings at the Twenty-second Annual Meeting—
  Inaugural Address of the President, Mr. T. Newbigging, 1069
  Report of the Council, 1075
  Review of the Proceedings, 1113
  General Report, 1117
  Papers Read—
  On Distributing Light and Heat, and Supplying Heated Air to Ordinary Gas Burners, by F. Siemens, 1165
  The Rating of Gas Works, by W. Carr, 1170
  On the Manufacture of Sulphuric Acid in Connection with Gas Works, by J. Hepworth, 1178
  The Effects of Heating Air, upon Combustion, by W. Gadd, 1182
  On the Elementary Principles of the Gas Engine, by Denny Lane, 1229
  On the Administration of Foreign Gas Works, by J. Cocks, 1234
  Lighting and Ventilating Ordinary Apartments by Gas, by W. Sugg, 1236
Gaseous Fuel, by H. Townsend, 1239

Gaslight and Coke Company's Horseferry Road Station, The New Holders at the, 491
Gaslight Ventilator, A Shadowless, 106
Glasgow, Conference of West of Scotland Gas Managers in, 488 (*see also under* "Correspondence," 535)
Guéguen, M., on the Chemical Theory of the Production of Illuminating Gas (*continued from preceding Volume*), 59, 107, 157, 250, 339, 393
Hall, Mr. J., on Working Retorts with Short Charges, 533
Head, Mr. J.—
Heating by Radiation as Applied to the Regenerative Gas Furnace, 60
Modified Form of Siemens's Gas Producer, 861
Heat, The Conversion of, into Useful Work in the Gas Engine, 1045
Hefner-Alteneck Unit of Light, The, 61
Hempel's Methods of Gas Analysis, 817
Holders, The New, at The Gaslight and Coke Company's Horseferry Road Station, 491
Holgate, Mr. T., on Some Aspects of Destructive Distillation, 675, 721
Humphreys, Mr. C. J. R., on the Effect of Carbonic Acid on the Illuminating Power of Coal Gas, 1143
Hydraulic Main, Mr. E. Vanderpool on the Removal of the Seal in the, 107
Institution of Civil Engineers—
Invention, Sir F. Bramwell on the Progress of, 104
Iron, Mr. B. H. Thwaite on the Preservation of, 200, 339
Report of Council, 1126
Water Supply, Dr. Pole on, 440
Iron and Steel Institute—
Coking of Coal, Mr. H. Simon and Mr. W. Smith on the, by the Simon-Carvès Process, 1002
Distillation of Coal, Professor Armstrong on the Recovery of Products from the, 960
Siemens Gas Producer, Mr. J. Head on a Modified Form of, 861
Iron and Steel Plates, A Regenerative Furnace for Heating, 17
Iron, The Preservation of, by One of Its Own Oxides, Mr. B. H. Thwaite on, 200, 339
Jameson Coking Process, The, 1209
Lighthouse Experiments, The, at the South Foreland, 250
Manchester Institution of Gas Engineers—
Meeting in Manchester—
General Business, 388
Proposed Reference Library, 388
Inaugural Address by Mr. J. Paterson, 389
Discussion on Mr. Hunter's Paper on Gas Works Capacity in Manufacturing and Non-Manufacturing Districts, 437
Meeting at Bowdon, 959
Midland Association of Gas Managers—Meeting at Birmingham—
General Business, 246
Inaugural Address by Mr. J. Tindall, 246
Paper Read—
Progress in Developing the Illuminating Power of Coal Gas, by Mr. C. E. Jones, 391
Miller, Professor A. K., on the Products of the Manufacture of Gas from Petroleum, 1209
Municipal and Sanitary Engineers and Surveyors, Association of—
Street Lighting, Mr. W. S. Crimp on, 1204
Sanitary Gas Making, Mr. J. A. Wanklyn on, 1205
Murrie's, Mr. J., Thermometer for Taking High Temperatures, 198
Natural Gas in America, 199, 491
New England Association of Gas Engineers, 490
North of England Gas Managers' Association—Half Yearly Meeting in Newcastle—
General Business, 769
Papers Read—
Something About Sulphate of Ammonia, by Mr. C. D. M'Allum, 770
A Simple Method of Repairing Gasholders while in Use; also on the Laying of Mains and Service Pipes, by Mr. J. Hall, 771
Petroleum, The Products of the Manufacture of Gas from, 1209
Plant, The Relative Positions of Gas Works, 16
Pole, Dr., on Water Supply, 440
Portland Cement, 1044
Radiation, Heating by, as Applied to the Regenerative Gas Furnace, Mr. J. Head on, 60
Regenerative Furnace, A, for Heating Iron and Steel Plates, 17
Retorts, The Shape and Setting of, 1126
Sanitary Gas Making, Mr. J. A. Wanklyn on, 1205
Short Charges, Working Retorts with, 533
Siemens's Gas Producer, Mr. J. Head on a Modified Form of, 861
Simon-Carvès Process, The Residuals Obtained in the Coking of Coal by the, 1002
Smith, Mr. W.—
Coking Coal by the Simon-Carvès Process, The Residuals Obtained in, 1002
Coking Coal, Early Efforts in, and the Recovery of Bye-Products, 108
Société Technique de l'Industrie du Gaz en France, Meeting of the, 1208
Society of Arts—
Ammonia, Mr. G. Beilby on the Production of, from the Nitrogen of Minerals, 294
Gas Engine, Mr. W. Anderson on the Conversion of Heat into Useful Work in the, 1045
Society of Chemical Industry—
Coke, Mr. W. A. Tilden on the Density of, 61
Coking Coal, Mr. W. Smith on Early Efforts in, and the Recovery of Bye-Products, 108
Hempel's Methods of Gas Analysis, Dr. W. Bott on, 817
Jameson Coking Process, Mr. J. Jameson on the, 1209
Radial Photometer and Proposed New Standards of Light, Mr. W. J. Dibdin on, 773, 863
Thermometry, New Inventions in, 198
Society of Engineers—
President's (Mr. C. Gandon's) Address, 197, 248
Portland Cement, Mr. H. Faija on, 1044
Southern District Association of Gas Engineers and Managers—
Annual Meeting in London—
General Business, 291
Inaugural Address by Mr. C. E. Botley, 291
Quarterly Meeting at Swindon, 912
South-West of England District Association of Gas Managers—Meeting at Sherborne—
General Business, 487
Inaugural Address by Mr. T. W. R. White, 533
Papers Read—
Accidents to Two Gasholders, by Mr. G. Garnett, 534
Difficulties Experienced in the Retort House and How I Overcame Them, by Mr. W. H. Moody, 580
Supply of Gas to Public Lamps, by Mr. J. H. Lyon, 624
Spent Lime, Another Use for, 157
Standard Candles, The Substitution of Cheap Sperm for, 629
Standards of Light, Mr. W. J. Dibdin on—
Paper read before the Society of Chemical Industry, 773, 863
Report to the Metropolitan Board of Works, 576, 626, 673, 718
Street Lighting, Mr. W. S. Crimp on, 1204
Thermometry, New Inventions in, 198
Thwaite, Mr. B. H., on the Preservation of Iron by One of Its Own Oxides, 200, 339
Tilden, Mr. W. A., on the Density of Coke, 61
Vanderpool, Mr. E., on Results Obtained by the Removal of the Seal in the Hydraulic Main, 107
Veley, Mr. V. H., on Sulphur Compounds of Calcium, 1045
Wanklyn, Mr. J. A., on Sanitary Gas Making, 1205
Water Gas Incandescent Light, Fahnehjelm's, 1209
Water Pipes, Shocks in, 628
Water Supply, Dr. Pole on, 440
West of Scotland Gas Managers, Conference of, in Glasgow, 488 (*see also under* "Correspondence," 535)
Weston, Mr. E. B., on Shocks in Water Pipes, 628
Workshop, The Use of Gas in the, Mr. T. Fletcher on, 154
Hartley, C. L.—The Amended Rules of The Gas Institute, 962
Hartley, F. W.—
Standards of Light, 18, 202
The Calorific Value of Coal Gas, 1090
Heisch, C.—Standards of Light, 18, 109, 202, 865
Humphrys, F. C.—Discounts on Gas Accounts, 109
Humphrys, N. H.—The Calorific Value of Coal Gas, 1046
Inquirer.—Cheap Gas for Trade Purposes, 341
Jones, C. F.—The Assessment of the Redhill Gas Works, 394
Jones, H. E.—Gas Testing in the Metropolis, 442
Leather, J. P.—The Heating of Air in Regenerators, 296
Livesey, G.—The Ashton Gas Company and the Sliding Scale, 251
Lucas, R. B.—The Legal *Status* of Gas Works in South Australia, 202
Myers, J. N.—Spontaneous Combustion in a Purifier, 1047
Newbigging, T.—Mr. Ellis Lever's Offer to The Gas Institute, 722, 777
Nickels, B.—Coal Tar Antiseptics and Disinfectants, 678
Nitrogen.—The Reduced Value of Residuals, 1004
Rawlinson, R.—Corporations and the Removal of Storm Water, 629
Security.—The Formation of Depreciation Funds, 629, 777
Spence and Sons.—The Residuals Contract of the Bradford Corporation, 342
Spice, R. P.—The Cooper Coal-Liming Process, 17
Stevenson, G. W.—The Revised Rules of The Gas Institute, 865
Sugg, W.—The Recent Controversy on Photometrical Standards, 394
Tar Distiller.—The Production of Coal Tar, 962
Terrace, D.—The Conference of West of Scotland Gas Managers, 535
Thwaite, B. H.—
Invisible Combustion, 342, 442
Mr. Fletcher's Lecture on the Abatement of Smoke, 723
Unit—Electrical Meters, 62
Veley, V. H.—
Sulphur Compounds of Calcium, 1211
The Use of Sulphide of Calcium for the Purification of Coal Gas, 1090
Waning—Old Gas Men, 395
Whimster, J.—Cheap Gas for Trade Purposes, 341
Wright and Co.—The System of Hiring Out Gas Stoves, 819
Wybauw, J.—
Day Consumption of Gas, 441, 535
Differential Charges for High and Low Pressure Gas, 341
Young, W. C.—The Variations in Candle Flames during Photometrical Observations, 442

Correspondence.

Agricultural Valuer and Broker—The Manurial Value of Sulphate of Ammonia as Compared with Nitrate of Soda, 1047
Associate, A Bewildered—The Amended Rules of The Gas Institute, 1004
Bower, G.—High Power Gas Lamps, 493
Broker—The Reduced Value of Residuals, 962, 1046
Burghardt, C. A.—The Domestic Use of Gas, 722
Chamberlain, J.—The Effects of Heating Air, upon Combustion, 1211
Cox, J. H.—The Use of Pyrites Acid in the Manufacture of Sulphate of Ammonia, 342
Cripps, F. S.—The French Central Column Counterbalanced Gasholder, 722
Cutler and Sons—Improvements in Gas Plant Machinery, 962
Defries and Sons—Mineral Oil Lamps, 1091
Dixon, H. B.—Mr. H. B. Dixon's Lectures on the Use of Coal Gas, 62
Evans, T.—Sealing Retort Lids with Asbestos, 251
Fairplay—The Reduced Value of Residuals, 1046
Fish, R.—The Amended Rules of The Gas Institute, 1046
Fletcher, T.—
A Use for Retort Carbon, 442
Cheap Gas for Trade Purposes, 394
Exhibits at the Inventions Exhibition, 912
Gas in the Workshop, 251
Heating by Radiation, 1090
Invisible Combustion, 395, 494
Lecture on the Abatement of Smoke, 629
Popular Instruction in the Uses of Gas, 297
Folkard, C. W.—The Use of Sulphide of Calcium for the Purification of Coal Gas, 1046
Gadd, W.—
Effects of Heating Air, upon Combustion, 1210
Elaborate Regenerators, 17
The Heating of Air in Regenerators, 341
Greville, H. L.—Sulphur Compounds of Calcium, 1144
Harcourt, A. V.—Standards of Light, 62, 158
Asbestos for Sealing Retort Lids—Evans, T., 25
Ashton Gas Company and the Sliding Scale—Livesey, G., 251
Assessment of the Redhill Gas Works—Jones, C. F., 394
Australia, Gas Undertakings in South—Lucas, R. B., 202
Candle Flames, Variations in, during Photometrical Observations—
Sugg, W., 394
Young, W. C., 442
Coal Gas, The Calorific Value of—
Hartley, F. W., 1090
Humphrys, N. H., 1046
Coal Tar Antiseptics and Disinfectants—Nickels, B., 678
Combustion, Spontaneous, in a Purifier—Myers, J. N., 1047
Cooper Coal-Liming Process—Spice, R. P., 17
Day Consumption of Gas—Wybauw, J., 441, 535
Depreciation Funds, The Formation of—Security, 629, 777
Differential Charges for Gas—Wybauw, J., 341
Discounts on Gas Accounts—Humphrys, F. C., 109
Dixon's, Mr., Lectures on the Use of Coal Gas—Dixon, H. B., 62
Domestic Use of Gas—Burghardt, C. A., 722
Electrical Meters—Unit, 62
Ellis Lever's, Mr., Offer to The Gas Institute—Newbigging, T., 722, 777
Fletcher's, Mr., Exhibits at the Inventions Exhibition—Fletcher, T., 912
Gasholders, French Central Column Counterbalanced—Cripps, F. S., 722
Gas Institute Rules, The—
A Bewildered Associate, 1004
Fish, R., 1046
Hartley, C. L., 962
Stevenson, G. W., 865
Gas Plant Machinery, Improvements in—S. Cutler and Sons, 962
Heating Air, The Effects of, upon Combustion—Chamberlain, J., 1211
Gadd, W., 1210
High Power Gas Lamps—Bower, G., 493

Hiring Out Gas Stoves—J. Wright and Co., 819
Industrial Use of Gas—
Fletcher, T., 251
Inquirer, 341
Invisible Combustion—
Fletcher, T., 395, 494
Thwaite, B. H., 342, 442
Lectures on Gas—Fletcher, T., 297
Mineral Oil Lamps—Defries and Sons, 1091
Old Gas Men—Waning, 395
Photometry, The Relative Value of High and Low Standards of Light in—Heisch, C., 865
Pyrites Acid, The Use of, in Sulphate of Ammonia Making—Cox, J. H., 342
Radiation, Heating by—Fletcher, T., 1090
Regenerator Furnaces—
Gadd, W., 17, 341
Leather, J. P., 296
Residuals Contract of the Bradford Corporation—Spence and Sons, 342
Residuals, The Reduced Value of—
Broker, 962, 1046
Fairplay, 1046
Nitrogen, 1004
Retort Carbon, A Use for—Fletcher, T., 442
Siemens's Regenerator Furnaces, The Working of—Terrace, D., 535
Smoke Abatement, Mr. T. Fletcher on—
Fletcher, T., 629
Head, J., 678
Thwaite, B. H., 723
Standards of Light—
Harcourt, A. V., 62, 158
Hartley, F. W., 18, 202
Heisch, C., 18, 109, 202, 865
Sugg, W., 394
Storm Water, Corporations and the Removal of—Rawlinson, R., 629
Sulphate of Ammonia, The Manurial Value of, as Compared with Nitrate of Soda—An Agricultural Valuer and Bailiff under the Agricultural Holdings (England) Act of 1883, 1047
Sulphide of Calcium, The Use of, for the Purification of Coal Gas—
Folkard, C. W., 1046
Veley, V. H., 1090
Sulphur Compounds of Calcium—
Greville, H. L., 1144
Veley, V. H., 1211
Tar, The Production of—Tar Distiller, 962
Testing Gas in the Metropolis—Jones, H. E., 442
Trade Purposes, Cheap Gas for—
Fletcher, T., 394
Whimster, J., 341
West of Scotland Gas Managers' Conference—Terrace, D., 535

Register of Patents.

[*The names printed in italics are those of persons by whom patents have been communicated.*]

Abel, C. D.—
Governor ("Anti-Fluctuator") for Gas Engines, 537
Siemens's Gas Producers, 820
Ainsworth, W.—Gas Engine Cylinders, 866
Appleford, W. G.—Gas Heating Burners, 443
Atkinson, J.—Gas Engines, 20
Bäcker, W.—Gas Producer Furnaces for Heating Retorts, 630
Bacon and Donkin—Hydraulic Mains, 18
Beck, W. H.—Manufacturing Hydrocarbon Gas, 110
Belfield, J. F.—Washing and Purifying Gas, 866
Bell, C. E.—Treating Oils and Tars obtained from Coke Ovens, 867
Bell, R.—Distilling Shales, &c., 679
Bennett, J. M.—Mechanical Retorts, 777
Berthon and Debenoih—Water Meter, 494
Besson and Burrows—Gas Governors, 1004
Bischof, G.—Spongy Iron for Water Purification, 630
Bonna, A.—Meters for Gas and Water, 962
Boult, A. J.—Manufacture of Illuminating and Heating Gas, 110
Bowie, Turner, and Hill—Liquid Meters, 821
Brydges, E. A.—Manufacturing Hydrocarbon Gas, 110
Buchamps, E.—Carburetting Air, 297
Butcher, J. J.—Igniting Valves for Gas Engines, 678
Byrom and Bennett—Collecting Apparatus for the Products of Gas Distillation, 203
Cabot, J.—Gas Purifier Screens, 20
Caink, T.—
Indicating the Passage of Water through Meters, 494
Lighting and Extinguishing Gas and Gas Lamps, 866, 1144
Carman, W. T. H.—Gas Pressure Regulators, 867
Carvès, F.—Treating the Coke Oven Gases and Recovering the Bye Products, 820
Chambers, F.—Fluid Meter, 396
Clark, A. M.—
Gas Lighting Apparatus, 159
Incandescent Gas Burners, 159
Cliff, W. D.—Valves, 204
Cobham and Gillespie—Gas Engines, 252
Cooper, C.—Gas Water Heaters, 343
Cort, J.—Adjustable Dip Pipes, 723
Cotton, W.—Water Meters, 1211
Cox, J. B.—Ovens for Baking and Roasting by Gas, 1128
Crossley, F. W.—Gas Engines, 251, 777
Cutler, E.—Gas Kilns for Firing Stained Glass, 495
Darwin, S. B.—Dip Pipes, 581
Dawson and Froggatt—Centre Valves, 63
Debouttéville and Malandin—Gas Engines, 203
Dempster, A.—Purifying Coal Gas, 724
Dewhurst, J. H.—Gas Engines, 396
Elderton, B. F.—Increasing the Brilliancy of Coal Gas, 1145
Fiddes, A.—Exhausters, 536
Fielding, J.—Gas Engines, 19
Fleischer, Müller, and Arnold—Gas Pressure Regulators, 867
Fletcher, T.—
Gas Cooking and Heating Apparatus, 820
Gas Heated Ovens, 396
Flosky, R.—Gas Burners, 444
Freestone and Kyle—Extinguishing and Relighting Street Lamps, 110
Frère, N.—Pipe Joints, 19
Frick, J.—Connecting Branch Pipes to Water Mains, 110
Gedge, W. E.—Water Meter, 494
George, R.—Gas Cooking and Heating Stoves, 819
Ginman, N. J.—Scraping and Cleaning Water Mains, 723
Goodson, J. and W.—Argand Gas Burners, 20
Green, H.—Asbestos Packing for Retort Lids, 495
Groth, L. A.—Gas Producer Furnaces for Heating Retorts, 630
Guthrie, H.—Gas Engines, 820
Guyer, J. D.—Self-Lighting Gas Burner, 778
Hack and Ley—Receiving and Conveying away Coke as Drawn from Gas Retorts, 19
Haddan, H. J.—Gas Purifier Screens, 20
Hanlon, J.—Manufacture of Illuminating and Heating Gas, 110
Harrison, G. R.—Gas Retorts, 298
Hayes, J. H.—Regulating the Supply of Gas and other Fluids or Liquids, 1005
Hazard, H. H.—Condensing and Absorbing the Products of Combustion from Gas used for Lighting and Heating, 536
Hélouis, N. A.—Manufacturing Benzene and its Homologues, 494
Henderson, A. C.—Manufacture of Air Gas, 443
Henderson, A. G.—Regulating the Supply of Gas to Burners, 158
Hill, W. and J. H.—Gas Engines, 297
Hills, F. C.—Purification of Gas, 343
Hipp and Gruneberg—Utilizing the Waste Material employed for the Purification of Gas, 298
Hislop, J.—Carbonizing Coal in Vertical Retorts, 111
Holt and Crossley—Starting Gas Engines, 342
Holt, H. P.—
Compressing Pumps for Gas Engines, 63
Gas Motor Engines, 679
Regulating the Supply of Gas to Gas Engines, 962
Hoskin and Goslin—Valves, 630
Howson, R.—Gas Producers, 1004
Irvine, R.—Manufacture and Purification of Coal Gas, 396
Johnson, J. H.—Gas Engines, 203
Jones, F. J.—Manufacture of Heating and Lighting Gas, 582
Kelly and Weigel—Making Sulphate of Ammonia, 777
King, C. W.—Gas Engines, 581
King, G.—Fastenings for Retort Lids, 536
Kinnear, A.—Self-Lighting Gas Burner and Tap, 109
Klönne, A.—Preventing Stoppages in Ascension Pipes, 723
Kuypers and Dennis—Pipe Joints, 19
Lake, H. H.—Purifying Gas, 203
Leoni, S.—
Gas Ovens, 630
Preventing the Radiation of Heat from Gas Stoves, 630
Linford and Piercy—Gas Engines, 678
Livesey and Tanner—Hydraulic Mains, 912
Lorenz, Æ. B.—Preventing Stagnation in Water Reservoirs and Pipes, 1211
Mactear, J.—Fluid Meters and Motors, 1144
M'Carty, W. F. M.—Manufacturing Hydrocarbon Gas, 110
M'Donough, T.—Gas Engines, 867
M'Dougall, A.—Manufacturing Ammoniacal Salt and Purifying Gas, 396
Magee, J.—Gas Engines, 1211
Mallett and Pagnies—Purifying Gas, 203
Mann, F. W.—High Pressure Cistern Valves, 912
Meadows, W. A.—Manufacture of Sulphate of Ammonia, 298
Morris and Folkard—Gas Valves, 158
Munden, W. J.—Gas Engines, 297
Nawrocki, G. W. Von—Gas Lamps, 298
Newton, H. E.—
Preventing Stoppages in Ascension Pipes, 723
Regulating the Supply of Gas to Railway Carriage Lamps, 109
Nobes, G.—Self-Acting Gas Cock, 913
Oehlmann, E.—Rotary Pump, Meter, or Motor, 678
Osgerly, J.—Gas Water Heaters, 723
Overhoff, J.—Removing Tar from the Hydraulic Main, 443
Pellegrin, L. A. V.—Carburetting Air, 297
Popp, V.—
Gas Lighting Apparatus, 159
Incandescent Gas Burners, 159
Porter, H. and J. H.—Softening and Purifying Water, 1047
Price, A. P.—Purification of Gas from Ammonia, 581
Preece and Trotter—Photometers, 397
Redfern, G. F.—Gas Engines, 867
Redmayne, T.—Gas Cooking Burners, 678
Rodgerson, W. J.—Gas Engines, 158
Schnell, Read, Warwick, and Darbyshire—Obtaining Gas from Hydrocarbons, 962
Schrabetz, E.—Governor ("Anti-Fluctuator") for Gas Engines, 537
Schülke, J.—Gas Lamps, 298
Schwab, M.—Removing Tar from the Hydraulic Main, 443
Siddaway, S.—Gas Heating Burners, 343
Siemens, F.—Gas Lamps, 1048
Siemens, F.—Siemens Gas Producers, 820
Simon, H.—Treating the Coke Oven Gases and Recovering the Bye Products, 820
Singleton, T.—Holders for Gas Burners, 18
Sleep, W. H.—Gas Lamp Globe Holders, 631
Société Internationale d'Eclairage par le Gaz d'Huile—Regulating the Supply of Gas to Railway Carriage Lamps, 109
Sombart, C. M.—Gas Engines, 679
Soutter, W.—Water Slide Gas Chandeliers, 913
Spence, J.—Gas Engines, 678
Springman, H.—Utilizing the Waste Material employed for the Purification of Gas, 298
Stent, A.—Self-Lighting Gas Burner, 778
Stott, J.—Gas Regulators, 678
Sugg, D. W.—Gas Burners and the Means of Supplying Air thereto, 65
Sugg, W. T.—Gas Fires, 110
Thomas, A.—Jet Photometers, 252
Thomas, J.—Ascension Pipes, 581
Thomson, J.—Spherical Joints for Pipes, 20
Thorp, T.—
Pressure Gauge, 1127
Registering the Illuminating Power of Gas, 1127
Walker and Bennett—
Distilling Solid Substances, 64
Self-Acting Retorts, 63
Walker, W. T.—Annular Condensers, 64
Weatherhogg, C. W.—Gas Engines, 678
Weck, F.—Washing and Scrubbing Gas, 64
Wenham, F. H.—Regenerative Gas Lamps, 536
Wilhelm, C.—Manufacture of Air Gas, 443
Wilkinson, Malam, and King—Gas Engines, 203
Willans, J. G.—Carbonizing Coal, 63
Wilson, W. P.—Manufacture of Gas, 342
Wilson and Porter—Dip Pipes, 396
Woodhead, W. R.—Gas Engines, 18
Wright, J. F. and G. E.—
Burners for Gas Cooking Stoves, 203
Supports for Shelves of Gas Cooking Stoves, 203
Young and Beilby—Distillation of Mineral Oils, their Residues and Tars, 1047

Adjustable Dip Pipes—Cort, J., 723
Air Gas Manufacture—Henderson, A. C. (*Wilhelm, C.*), 443
Annular Condensers—Walker, W. T., 64
Argand Gas Burners—Goodson, J. and W., 20
Argand Gas Burners, &c.—Sugg, D. W., 65
Asbestos Packing for Retort Lids—Green, H., 495
Ascension Pipes—Thomas, J., 581
Burners for Gas Cooking Stoves—Wright, J. F. and G. E., 203
Carbonizing Coal—Willans, J. G., 63
Carbonizing Coal in Vertical Retorts—Hislop, J., 111
Carburetting Air—Pellegrin, L. A. V. (*Buchamps, E.*), 297
Centre Valves—Dawson and Froggatt, 63
Collecting Apparatus for the Products of Coal Distillation—Byrom and Bennett, 203
Compressing Pumps for Gas Engines—Holt, H. P., 63
Condensing and Absorbing the Products of Combustion from Gas used for Lighting and Heating—Hazard, H. H., 536
Connecting Branch Pipes to Water Mains—Frick, J., 110
Dip Pipes—
Darwin, S. B., 581
Wilson and Porter, 396
Distilling Shales, &c.—Bell, R., 679
Distilling Solid Substances—Walker and Bennett, 64
Distillation of Mineral Oils, their Residues and Tars—Young and Beilby, 1047
Exhausters—Fiddes, A., 536
Extinguishing and Relighting Street Lamps—Freestone and Kyle, 110
Fastenings for Retort Lids—King, G., 536
Fluid Meter—Chambers, F., 396
Fluid Meters and Motors—Mactear, J., 1144
Gas Burners—Flosky, R., 444

Gas Cooking and Heating Apparatus—Fletcher, T., 820
Gas Cooking and Heating Stoves—George, R., 819
Gas Cooking Burners—Redmayne, T., 678
Gas Engine Cylinders—Ainsworth, W., 866
Gas Engines—
Atkinson, J., 20
Cobham and Gillespie, 251
Crossley, F. W., 251, 777
Dewhurst, J. H., 396
Fielding, J., 19
Guthrie, H., 820
Hill, W. and J. H., 297
Holt, H. P., 679
Johnson, H. (*Deboutteville and Malandin*), 203
King, C. W., 581
Linford, F. C., 678
Magee, J., 1211
Munden, W. J., 297
Piercy, H. J. T., 678
Redfern, G. F. (*M'Donough, T.*), 867
Rodgerson, W. J., 158
Sombart, C. M., 679
Spence, J., 678
Weatherhogg, C. W., 678
Wilkinson, Malam, and King, 203
Woodhead, W. R., 18
Gas Fires—Sugg, W. T., 110
Gas Governors—Besson and Burrows, 1004
Gas Heated Ovens—Fletcher, T., 396
Gas Heating Burners—
Appleford, W. G., 443
Siddaway, S., 343
Gas Kilns for Firing Stained Glass—Cutler, E., 495
Gas Lamp Globe Holders—Sleep, W. H., 631
Gas Lamps—Nawrocki, G. W. Von (*Schülke, J.*), 298
Gas Lamps—Siemens, F., 1048
Gas Lighting Apparatus—Clark, A. M. (*Popp, V.*), 159
Gas Manufacture—
Boult, A. J. (*Hanlon, J.*), 110
Irvine, R., 396
Jones, F. A., 582
Wilson, W. P., 342
Gas Ovens—Leoni, S., 630
Gas Pressure Regulators—Carman, W. T. H. (*Fleischer, Müller, and Arnold*), 867
Gas Producers—Howson, R., 1004
Gas Producer Furnaces for Heating Retorts—Groth, L. A. (*Bäcker, W.*), 630
Gas Purifier Screens—Haddan, H. J. (*Cabot, J.*), 20
Gas Regulators—Stott, J., 678
Gas Retorts—Harrison, G. K., 298
Gas Valves—Morris and Folkard, 158
Gas Water Heaters—
Cooper, C., 343
Fletcher, T., 443
Osgerly, J., 723
Governor ("Anti-Fluctuator") for Gas Engines—Abel, C. D. (*Schrabetz, E.*), 537
High Pressure Cistern Valves—Mann, F. W., 912
Holders for Gas Burners—Singleton, T., 18
Hydraulic Mains—
Bacon and Donkin, 18
Livesey and Tanner, 912
Igniting Valves for Gas Engines—Butcher, J. J., 678
Incandescent Gas Burners—Clark, A. M. (*Popp, V.*), 159
Increasing the Brilliancy of Coal Gas—Elderton, B. F., 1145
Indicating the Passage of Water through Meters—Caink, T., 494
Jet Photometers—Thomas, A., 252
Lighting and Extinguishing Gas and Gas Lamps—Caink, T., 866, 1144
Liquid Meters—Bowie, Turner, and Hill, 821
Manufacture of Sulphate of Ammonia—
Kelly and Weigel, 777
Meadows, W. A., 298
Manufacturing Ammoniacal Salt and Purifying Gas—M'Dougall, A., 396
Manufacturing Benzene and its Homologues—Hélouis, N. A., 494
Manufacturing Hydrocarbon Gas—
Beck, W. H. (*M'Carty, W. F. M.*), 110
Bridges, E. A. (*M'Carty, W. F. M.*), 110
Mechanical Retorts—Bennett, J. M., 777
Meters for Gas and Water—Bonna, A., 962
Obtaining Gas from Hydrocarbons—Schnell, Read, Warwick, and Darbyshire, W., 962
Ovens for Baking and Roasting by Gas—Cox, J. B., 1128
Photometers—Preece and Trotter, 397
Pipe Joints—Frère, N. (*Kuypers and Denis*), 19
Pressure Gauge—Thorp, T., 1127
Preventing Stagnation in Water Reservoirs and Pipes—Lorenz, Æ. B., 1211
Preventing Stoppages in Ascension Pipes—Newton, H. E. (*Klönne, A.*), 723
Preventing the Radiation of Heat from Gas Stoves—Leoni, S., 630
Purification of Gas—
Dempster, A., 724
Hills, F. C., 343
Irvine, R., 396
Lake, E. H. (*Mallett and Pagniez*), 203
M'Dougall, A., 396
Price, A. P., 581
Receiving and Conveying Coke as Drawn from Gas Retorts—Hack and Ley, 19
Regenerative Gas Lamps—Wenham, F. H., 536
Registering the Illuminating Power of Gas—Thorp, T., 1127
Regulating the Supply of Gas—
To Burners—Henderson, A. G., 158
To Gas Engines—Holt, H. P., 962
To Railway Carriage Lamps—Newton, H. E. (*Société Internationale d'Eclairage par le Gaz d'Huile*), 109
Regulating the Supply of Gas and other Fluids or Liquids—Hayes, J. H., 1005
Removing Tar from the Hydraulic Main—Schwab, M. (*Overhoff, J.*), 443
Rotary Pump, Meter, or Motor—Oehlmann, E., 678
Scraping and Cleaning Water Mains—Ginman, N. J., 723
Self-Acting Gas Cock—Nobes, G., 918
Self-Acting Retorts—Walker and Bennett, 63
Self-Lighting Gas Burner and Tap—Kinnear, A., 109
Self-Lighting Gas Burner—Stent, A. (*Guyer, J. D.*), 778
Siemens Gas Producers—Abel, C. D. (*Siemens, F.*), 820
Softening and Purifying Water—Porter, H. and J. H., 1047
Spherical Joints for Pipes—Thomson, J., 20
Spongy Iron, The Manufacture of, for Water Purification—Bischof, G., 630
Starting Gas Engines—Holt and Crossley, 342
Supports for Shelves of Gas Cooking Stoves—Wright, J. F. and G. E., 203
Treating Coke Oven Gases and Recovering the Bye Products—Simon, H. (*Carvès, F.*), 820
Treating Oils and Tars obtained from Coke Ovens—Bell, C. E., 867
Utilizing the Waste Material employed for the Purification of Gas—Springham, H. (*Hipp and Grüneberg*), 298
Valves—
Cliff, W. D., 204
Hoskin and Goslin, 630
Washing and Purifying Gas—Belfield, J. F., 866
Washing and Scrubbing Gas—Weck, F., 64
Water Meter—Gedge, W. E. (*Berthon and Debenoith*), 494
Water Meters—Cotton, W., 1211
Water Slide Gas Chandeliers—Soutter, W., 913

Patent Notices, 20, 111, 159, 204, 252, 298, 344, 397, 444, 495, 537, 582, 631, 679, 724, 778, 821, 867, 913, 963, 1005, 1048, 1128, 1145, 1211

Parliamentary Intelligence.

Gas and Water Bills, 1885, 65, 112, 160
House of Lords—
Smoke Abatement in the Metropolis, 538
Water Companies (Regulation of Powers) Bill, 398, 537, 546, 821, 868
Water Works Clauses Act (1847) Amendment Bill, 1186
House of Lords Select Committee on the Water Companies (Regulation of Powers) Bill, 583, 725, 779, 823
House of Lords Committees—
Kent Water Bill, 1091, 1186
Southampton Corporation Water Bill, 1005
Southwark and Vauxhall Water Bill, 1187
House of Commons—
Electric Lighting Act Amendment, 687
Lighthouse Illuminants, 444, 538, 582, 868, 914
London Water Companies and the Metropolis Valuation Act, 444, 496
Municipal Corporations (Borough Funds) Bills, 444, 778
Private Bill Legislation, 398, 821
Rating of Water Works (Local Authorities), 398
Returns as to Gas Undertakings, 344, 582
State of the River Lea, 868
Statistics of Metropolitan Water Companies, 632, 1186
Water Companies' (Regulation of Powers) Bill, 869
Water Works Clauses Act (1847) Amendment Bill, 344, 778, 821, 869, 964
Zamora Water Works, 869
House of Commons Committees—
Ashton-under-Lyne and District Water Bill, 539, 586
Bradford Water Works and Improvement Bill, 869
Bury Improvement Bill, 822
Horsforth Water Bill, 584
Maidstone Water Bill, 584
Neath Water Bill, 680, 779
Northwich Local Board Water Bill, 632
Northwich Water Bill, 632
Stalybridge Gas Transfer Bill, 726
Unopposed Bills, 586, 780
Woking Water and Gas Bill, 632

Progress of Bills relating to Gas and Water, 445, 583, 631, 780, 868, 914, 964, 1049, 1091, 1186, 1188, 1212

Legal Intelligence.

Birmingham County Court—Affleck *v.* Corporation of Birmingham, 207
Birmingham Police Court—Embezzlement by a Corporation Official, 207
Bow Street Police Court—Gaslight and Coke Company *v.* Foote, 963
Bradford Borough Police Court—Alleged Embezzlement by a Corporation Official, 1212
Bristol Police Court—Bristol Sanitary Authority *v.* Bristol United Gas Company, 345, 401
Bristol Winter Sessions—Bristol Sanitary Authority and the Bristol Gas Company, 20, 399
Burnley Police Court—Burnley Corporation *v.* Binns, 634
Bury Police Court—Libelling a Gas Works Foreman, 299
Cardiff County Court—Hill *v.* The Cardiff Corporation, 1145
Court of Session—Outer House—
Quinn *v.* Clippens Oil Company, 113
Robertson and Co. *v.* Gilroy, 207
Dartford Petty Sessions—Closing a Polluted Well, 207
Enfield Petty Sessions—Alleged Contaminated Well Water, 113
High Court of Justice—
Chancery Division—
Farsley Local Board *v.* Hainsworth, 112
Preston Corporation *v.* Fulwood Local Board, 112, 170
Sugg *v.* Bray, 633, 914
Taylor and Another *v.* East Barnet Valley Local Board, 299
Taylor *v.* Friern Barnet Local Board, 112
Queen's Bench Division—
Basingstoke Corporation *v.* Soper, 870
Birstal Local Board *v.* The Assessment Committee of the Dewsbury Union, 1093
Bristol Water Works Company *v.* Uren, 586, 633
Cutler *v.* Corporation of Windsor, 206
Henderson *v.* Folkestone Water Company, 496
Howard and Another *v.* East Worcestershire Water Company, 446
Mason and Another *v.* Ashton Gas Company, 160, 205
Richards *v.* West Middlesex Water Works Company and Another, 497
Selous and Another *v.* Croydon Rural Sanitary Authority and Others, 112
Selous and Another *v.* Wimbledon Local Board, 112
Smith *v.* Mayor and Corporation of Birmingham, 497
South Staffordshire Water Company *v.* Assessment Committee of West Bromwich Poor Law Union, 496
Weedon *v.* Gaslight and Coke Company, 824
West Middlesex Water Works Company *v.* Coleman, 445
Wood and Co. *v.* The West Ham Gas Company, 1145
Halifax County Court—Hemingway *v.* Elland Gas Company, 113
Hammersmith Police Court—The Supply of Water for Trade Purposes, 299
High Court of Justice, Ireland—Chancery Division—Winding up of the Newtownards Gas Company, 207, 263
House of Lords—Williams *v.* Pontypool Gas and Water Company, 445
Lambeth Police Court—Annual Value Disputes, 498
Leeds County Court—Action under the Employers' Liability Act, 498
Leicestershire Quarter Sessions—Leicester Corporation *v.* Churchwardens and Overseers of Newtown Linford, 65
Liverpool Assizes—Libelling a Gas Works Foreman, 360
Liverpool Bankruptcy Court—A Bankrupt Tar Distiller, 645, 677
Marylebone Police Court—
Alteration of Water Fittings, 113, 253
Coleman *v.* West Middlesex Water Works Company, 1006
Cutting off Water Supply, 114
Water Consumers' Liability for Undercharges, 114
Water Rate Dispute, 162
Newcastle Police Court—Mayor of Newcastle *v.* Newcastle-upon-Tyne and Gateshead Gas Company, 162
Preston County Petty Sessions—Haighton Highway Authority *v.* Fulwood Local Board, 34
Salford Hundred Quarter Sessions—The Rating of the Radcliffe and Pilkington Gas-Works, 401
Sheffield Police Court—The Rating of the Sheffield Water Works, 964
Sheffield Quarter Sessions—Sheffield Water Company, Appellants, *v.* Guardians of the Sheffield Union, Respondents, 728
Southwark Police Court—The Provision of Constant Supply Fittings, 688
Supreme Court of Judicature—Court of Appeal—
Ballard *v.* Tomlinson, 345
Cutler *v.* Corporation of Windsor, 496
Gaslight and Coke Company *v.* Vestry of St. Mary Abbotts, Kensington, 539, 823

Thames Police Court—
East London Water Company *v.* Rowlandson, 781
Fish *v.* East London Water Company, 498
Grottick *v.* East London Water Company, 20
James *v.* East London Water Company, 680
Metropolitan Board of Works *v.* Commercial Gas Company, 345
Wantage County Court—A Disputed Claim for Extra Work, 877
West Ham Police Court—East London Water Company *v.* Haynes, 824
West Riding Police Court—Gas Testing by Local Authorities, 207
West Riding Winter Assizes—Farsley Local Board *v.* Hainsworth, 345
Worship Street Police Court—
Button *v.* East London Water Works Company, 1006
Noel *v.* East London Water Works Company, 21
The Provision of Exterior Stopcocks, 1146

Meetings of Companies.

Alexandria Water Company, 1097
Alliance and Dublin Gas Company, 637
Antwerp Water Company, 686
Ascot District Gas Company, 403
Bahia Gas Company, 1008
Barnet District Gas and Water Company, 350
Beyrout Water Company, 165
Bombay Gas Company, 921
Brentford Gas Company, 402
Bristol United Gas Company, 541
Bristol Water Company, 642
Buenos Ayres Gas Company, 1009
Canterbury Gas and Water Company, 406
Chelsea Water Company, 1148
Colne Valley Water Company, 260
Commercial Gas Company, 635
Croydon Commercial Gas Company, 402
Crystal Palace District Gas Company, 540
Derby Gas Company, 454
Dover Gas Company, 500
East London Water Company, 640
European Gas Company, 164
Gaslight and Coke (Chartered) Company, 300
Georgetown (British Guiana) Gas Company, 1009
German Continental Gas Company, 500
Grand Junction Water Works Company, 1149
Harrow District Gas Company, 447
Imperial Continental Gas Association, 871
Kent Water Company, 307
Lambeth Water Company, 1011
Liverpool United Gas Company, 349
Malta and Mediterranean Gas Company, 1147
Mauritius Gas Company, 827
Monte Video Gas Company, 965
Newcastle and Gateshead Gas Company, 349
Newcastle-upon-Tyne Water Company, 406
Nictheroy (Brazil) Gas Company, 921
Normanton Gas Company, 454
Odessa Water Company, 685
Ottoman Gas Company, 638
Pará Gas Company, 165, 211
Plymouth Gas Company, 1217
Reading Gas Company, 409
Rio de Janeiro Gas Company, 782
San Paulo Gas Company, 733
Singapore Gas Company, 826
Sheffield United Gas Company, 637
Sheffield Water Company, 786
Soham and District Water Company, 408
South Metropolitan Gas Company, 346
Southwark and Vauxhall Water Company, 307, 1096
St. Petersburg New Water Works Company, 451
Torquay Gas Company, 593
Uxbridge Gas Company, 403
West Middlesex Water Company, 877
Whitchurch and District Gas Company, 397
York United Gas Company, 263

Miscellaneous.

Acton Local Board, The, and the Drainage of the Lower Thames Valley, 677
Adelaide (South Australia), Gas Affairs at, 66
Alfreton Water Works, 881
Alliance Gas Company, The, and The Dublin Corporation, 256, 353, 966
Ammonia in Potable Waters, M. Greinert on the Occurrence of, 122
Analyzing Water at Newark, 32
Antwerp Exhibition, British Jurors at the, 1142
Artesian Well, Sinking an, at Alnwick, 967
Artificial Illumination, Professor Lambert on, 357
Ascot District Gas Company, Half Yearly Report of the, 311
Ashton Gas Case, Effect of the Decision in the, 263, 408
Ashton-under-Lyne and District Water Supply, 72, 167, 594, 1012
Ashton-under-Lyne, Formation of a Gas Consumers' Association at, 357
Assessment of Water Works in Scotland, The, 596, 686
Association of Municipal and Sanitary Engineers, 785, 969
Aston Local Board, The, and the Public Lighting of the District, 454
Bahia Gas Company, Half Yearly Report of the, 903
Baildon Water Supply, 688, 881, 927
Banbury Gas Company, Successful Working of the, 353
Bangor Gas and Water Supply, 740, 881, 1076
Bartholomew, The Late Mr. Hugh, and the Glasgow Gas Industry, 354
Barton-on-Humber Water Supply, 122
Barton Regis Water Supply, 644
Basingstoke Water Supply, 354, 1153
Bath Gas Company, 397
Batley Water Supply, 643, 968, 1151
Beckton Gas Works, Threat to Blow up the, 202
Belper Water Supply, 644
Birkenhead Corporation Gas Supply, 119
Birkenhead Corporation Water Supply, 874
Birkenhead, Exhibition of Gas Appliances, 456, 504, 639
Birkenhead Gas Exhibition, Local Tradesmen and the, 494, 682
Birmingham Corporation Gas Supply—
Accounts of the Gas Department, 352
Gas and Meter Testing, 77
Report of the Gas Committee, 303
Birmingham Corporation Water Supply—
Litigation with Mr. W. B. Smith, 169
Proposed Extension of the Water Works, 1053
Report of the Water Committee, 360
Birmingham Electric Lighting Bill, Withdrawal of the, 790
Birstal, Mr. P. K., on the Water Companies (Regulation of Powers) Bill, 685
Blackburn Gas and Water Supply, 1012, 1051
Blackrod Water Supply, 455
Blast Furnaces, Recovery of Residuals from, 734
Board of Trade Reports on Gas and Water Bills and Orders, Session 1885, 405
Boilers and Furnaces, Gas for, 71
Bolton Corporation Gas Supply, 34, 961, 1014, 1057
Bolton Corporation Water Supply, 121, 879
Bombay Gas Company, Half Yearly Report of the, 892
Boston (U.S.A.), The Public Lighting of, 259
Bournemouth Gas and Water Company, Issue of Shares in the, 169
Bowden, Great, The Lighting of, with Gas, 33
Bower Gas Lamps in the Bradford Free Library, 118
Bradbury and Hirsch, Messrs., on the Market for Sulphate of Ammonia and Nitrate of Soda in 1884, 25
Bradford Corporation Gas Supply—
Appropriation of Gas Profits, 306
Price of Gas, 543
Proposed Acquisition of Private Gas Works, 166, 499
Statistics of Gas Undertaking, 785
Bradford Corporation Official, Alleged Embezzlement by a, 1147
Bradford Corporation Water Supply—
Defective Reservoir, 968
Dispute with Leeds, 121, 159, 217, 261, 644, 736, 879, 925, 1014, 1052
Future Supply of the Borough, 503, 1217
Scale of Charges for Water, 307
Statistics of Water Undertaking, 785
Bramwell, Lord, and Sir W. Harcourt, 398
Bramwell, Sir F., on the Work of Civil Engineers, 827
Brentford Gas Company, Half Yearly Report of the, 302
Brierfield Gas and Water Supply, 970
Brighouse Gas Supply, 833, 966, 1056
Brighton and Hove Gas Company, Half Yearly Report of the, 505
Bristol Sanitary Authority, The, and the Gas Company, 449
Bristol Water Company, Half Yearly Report of the, 595
Bristol Water Works, Extension of the, 546, 595
Bristol Workhouse, The Water Supply of the, 76, 125, 407, 546, 595
British Insulate Electric Light Company, Failure of the, 302
Bromsgrove Gas Works, Proposed Purchase of the, by the Local Board, 455
Brussels Municipal Gas Supply, 592
Buda-Pesth Water Works, The Pumping Machinery at the, 1215
Buenos Ayres (New) Gas Company, Report of the, 969
Builders, Unlawful Use of Water by, 505
Bull, Mr. H. C., and his Companies, 545
Burnham Gas Works, Proposed Purchase of the, by the Local Board, 120, 454
Burnham Water Supply, 169, 595
Burnley Corporation Gas Supply—
Price of Gas, 844, 681, 876
Reduced Value of Residuals, 1095
Report Mr. S. P. Leather, 1150
Burnley Water Supply, 31, 829, 1150
Burslem Gas Supply, 922
Burton-on-Trent Gas Supply, 881
Bury, Water Charges at, 124, 215, 309, 407, 505
Business Changes with the New Year, 29
Buxton Gas Supply, 922
Canterbury Gas Works, Extensions at the, 296
Canterbury, Polluted Wells in, 114, 299, 535, 644, 970, 1218
Cardiff Gas Supply, 169
Cardiff Water Supply, 452, 787, 789, 928, 1153, 1217
Carlisle, Charge for Water in, 124, 311
Carlisle, Exhibition of Gas and Water Appliances in, 545, 728, 783
Carlisle Gas Exhibition, Lectures in Connection with the, 730, 731
Carnarvon Gas Supply, 882, 1051
Caterham Spring Water Bill, The, 32, 311, 502
Charges for Gas and Water in Provincial Towns, 1052
Chelmsford Gas Company, The, and their Provisional Order, 494
Cheltenham Water Works, 1217
Chesterfield Union, Storeage of Water in the, 1218
Chesterfield Water Supply, 503
Chichester Gas and Water Works, Proposed Purchase of the, by the Corporation, 261
City of London, Private Electric Lighting in the, 1153
Cleckheaton Gas Supply, 832
Cleethorpes, Gas and Electric Lighting at, 928
Clerk, Mr. Dugald, on Gas Engines, 450
Clevedon Gas Works, Suggested Purchase of the, by the Local Board, 262
Clitheroe Gas and Water Supply, 832
Coal Field, New, in Fifeshire, 76
Coal, Mr. S. Hunter on the Composition and Products of, 114, 163
Coal Waste, Proposed Utilization of, for Gas Manufacture, 969
Colchester, Electric Lighting Experiment at, 306, 408
Colchester Gas Company, The, and the Electric Light Competition, 394
Colchester Water Supply, 78
Collection of Water Rents, The, 963
Colne (Lancs.), The Price of Gas at, 811
Commissioners of Sewers of the City of London, Mr. W. Haywood's Report to the, on the Public Lighting of the City in 1884, 733
Companies, New Joint Stock—
Automatic Retort Company, 789
Ashmore, While, and Co., 825
Candelaria Water Works Company, 264
Oystermouth District Gas and Water Company, 452
Competition in Gas Supply, 734
Congleton, The Price of Gas at, 688
Conway Gas Supply, 450
Cooking, Supply of Gas for, at Reduced Prices, 302
Cottenham Water Supply, 881
Coventry Gas Supply, 33, 257, 288, 1051
Coventry Gas Works, Transfer of the, to the Corporation, 454
Croydon, Exhibition of Gas Appliances at, 1007, 1056
Croydon Gas Works—
The Assessment of the, 1088
The Proposed Purchase of the, by the Corporation, 302, 592
Crystal Palace District Gas Company—
Half Yearly Report of the, 447
Sale of Shares in the, 781
Crystal Palace Electric and Gas Exhibition 1882-3—Complimentary Dinner to Mr. G Livesey, 1007
Darlington Gas and Water Supply, 645, 1053
Darwen Water Supply, 547, 1055
Day Consumption of Gas, The, 263, 505
Deaths—
Bartholomew, Mr. H., 354
Clutterbuck, Rev. J. C., 913
Deykin, Alderman, 996
Hildyard, Capt. R. C., 213
Hill, Mr. D., 32
Hunter, Mr. T., 296
Mallet, M., 288
Nelson, Sir T., 240
Puckle, Dr. G., 102
Samuda, Mr. D'A., 832
Servier, M., 1040
Silliman, Professor, 100
Stibbs, Mr. J., 644
Dempster's, Messrs. R. & J., New Works and Plant at Newton Heath, 72, 920, 1012
Denton, Gas Affairs at, 407, 448, 789
Discounts on Gas Accounts, 362, 740, 903
Dixon, Mr. Harold B., M.A., on Gas Light and Gas Heat, 730
Dobbs Agitation, The Vestries and the, 192
Doncaster Corporation Gas Supply, 903
Doncaster Corporation Water Supply, 33, 309, 550, 1097
Dorking, The Public Lighting of, 1217
Dorking Water Company—Arbitration Proceedings, 169, 207
Dover Gas Company's Provisional Order, The, 25, 68, 116, 259
Droitwich Water Supply, 970
Dublin Corporation, The, and the Alliance Gas Company, 256, 353, 448, 966
Dublin Out-Townships, The Water Supply of the, 970

Dukinfield and Denton Joint Gas Undertakings, Dissolution of the—
Arbitration Proceedings, 21, 23, 253, 304, 355, 403
Arbitrator's Award, 1056
Dukinfield, Application of Gas Profits at, 597
Dukinfield Gas Supply, 881
Dukinfield Local Board, The, and the Stalybridge Gas Bill, 455
Dundee Corporation Gas Supply, 70
Dunedin (N.Z.) Corporation Gas Supply, 1213
Dwight's, Mr., New Incandescent Gas Light, 735
Eastbourne, The Price of Gas at, 506
East London Water Company, Half Yearly Report of the, 594
Electric Lighting—
At Cleethorpes, 928
At Leeds, 644, 738
At Temesvar, 879
In America, 827
In Hackney, 125
In Vienna, 832
Electric Lighting Act, The Proposed Amendment of the, 30, 541
Electric Lighting Dangers, 217
Electric Lighting Trials, 644
Elland Water Supply, 596, 1100
Ely Local Board Water Supply, 258
Engineers, Sir F. Bramwell on the Work of Civil, 827
Erith, The Public Lighting of, 682
Exhibitions of Gas Appliances, 117, 255, 311, 409, 450, 499, 505, 545, 593, 683, 785, 789, 829, 876, 923, 967, 1006, 1051, 1094, 1217
Explosions of Gas, 29, 125, 166, 217, 263, 505, 781, 789, 832, 1014
Falkirk Water Bill, Withdrawal of the, 264
Farnworth, The Price of Gas at, 881, 1150
Fenton Gas Supply, 33, 832
Fifeshire, New Coal Field in, 76
Fireplaces, The Pollution of the Atmosphere by Domestic, 296
Firth, Mr. J. F. B., on the London Water Supply, 968
Firth's, Mr., Return in Relation to the Metropolitan Water Companies, 737, 786
Fittings, Water Consumers and their, 263
Fletcher, Mr. T., on the Abatement of Smoke, 587
Flint Gas and Water Works, Proposed Purchase of the, by the Corporation, 311
Fog, The Cost of a London, 192
Frankland, Dr. P., on the Selection of Water for Domestic Supply, 358
Freight for Gas Coals, Increase of, on Spanish Railways, 34
Fulwood Water Supply, 572, 830, 861, 925, 1014, 1057
Furnaces and Boilers, Gas for, 71
Gainsborough Water Supply, 122
Gardens, The Use of Sulphate of Ammonia in, 78
Gaseous Fuel, 450
Gas Engines, Mr. Dugald Clerk on, 450
Gas Institute, The—
The Proceedings at the Annual Meeting (A Correction), 1142
Visits to the Manchester and Salford Gas Works, 1147
Gas Kiln, A Continuous Regenerative, 1094
Gaslight and Coke Company—
Appointment of Mr. J. O. Phillips as General Manager, 1199
Half Yearly Accounts, 209
Half Yearly Report, 208
Officers' Winter Dinner, 253
Steam Roller Case, 1087, 1149, 1212
Gas Mains, The Laying of, in Rotherhithe, 449
Gas Plant Manufacturing Machinery, Improvements in, 72, 920, 1012
Gas Products, Sales of, 33, 77, 124, 169, 217, 263, 311, 361, 408, 454, 503, 549, 597, 644, 688, 739, 789, 832, 881, 927, 970, 1014, 1056, 1100, 1152, 1217
Gas Stoves, The Letting of, on Hire, 590, 643
Georgetown (British Guiana) Gas Company, Half Yearly Report of the, 860
German Empire, Gas and Water Works *Employés* in the, 310
Glasgow Corporation Gas Supply—
Letting Gas Stoves on Hire, 590
Public Lighting of Glasgow, 1152
Glasgow Corporation Water Supply—
Corporation Water Bill, 31
Estimates of the Water Undertaking for 1885-6, 790
Glossop, The Charge for Water at, 688
Gloucester Water Supply, 121, 214
Gosport, A Water Supply Question at, 832
Grand Junction Water Company—
Half Yearly Report, 1097
Remarks on Mr. Firth's Return, 829
Grantham Gas Works, Extension of the, 311
Gratuitous Gas Supplies at Heywood, 311
Greenfield, Mr. J., of Torquay, Retirement of, 593
Greenough, Mr. M. S., on Competition in Gas Supply, 734
Grimsby Gas Company's Provisional Order, The, 118, 208
Guildford Gas Works, Extensions at the, 1015
Guildford Water Supply, 32
Halifax Gas and Water Supply, 644, 924
Handsworth Water Supply, 1011
Handsworth Woodhouse, The Lighting of, 34
Harcourt, Mr. A. Vernon, on Gas and other Illuminants, 874
Harcourt, Sir W., and Lord Bramwell, 398
Harrison's, Mr. J. T., Scheme for an Improved Water Supply for the Metropolis, 73
Harrogate Gas Company—
Issue of Stock in the, 1152
The Corporation and the, 455
Harrogate, Gas *versus* Electric Lighting at, 500
Harrow District Gas Company, Half Yearly Report of the, 303
Harrow, Exhibition of Gas Apparatus at, 499
Harrow Water Works, The Proposed Transfer of the, to the Colne Valley Water Company, 549, 645, 1056, 1218
Haslingden Gas Supply, 21, 303
Haverhill Gas Works, Proposed Purchase of the, by the Local Board, 262
Hawick, Gas Exhibition at, 683
Haywood, Mr. W., on the Public Lighting of the City of London in 1884, 733
Heating, Lighting, and Ventilation, Mr. J. Newton on, 629
Heckmondwike, Water Charges at, 217
Heywood, Cheap Gas for Cooking Purposes at, 362
Heywood Gas Supply, 505, 966, 1011, 1056, 1150
Heywood, Gratuitous Gas Supplies at, 311
Heywood Water Supply, 1056
Highbridge Water Supply, 549, 881
Hobart (Tasmania) Gas Works, Extensions at the, 1213
Holywell Water Supply, 72, 263, 546, 689, 1217
Honiton Water Supply, The Quality of the, 1212
Horsforth Water Bill, The, 263, 312, 789
Horwich Water Supply, 833, 1215
Huddersfield Gas and Water Supply, 170
Hull Corporation, The, and their Water Engineer, 1052, 1217
Hull Corporation Water Supply, 124, 494, 831, 1054, 1153
Hull, Diarrhœa Epidemic at, 644, 830, 879
Hull Gas Companies, Suggested Purchase of the, by the Corporation, 309
Hunter, Mr. S., on the Composition and Products of Coal, 114, 163
Hyde Water Supply, 124
Hydrants, The Supply of Water for, 345, 1244
Hydro-Mechanics, The Institution of Civil Engineers Lectures on, 214, 440, 737
Ilkeston Gas Supply, 405, 455, 549, 738, 790, 1056
Incandescent Electric Lamps, Tests of, in America, 1152
Incandescent Light, A New Water Gas, 735
Institution of Civil Engineers—
Lectures on Hydro-Mechanics, 214, 440, 737
Proceedings at Meetings, 124, 240, 827, 999
Inventions Exhibition, The International—
Appointment of Juries, 1049
Society of Arts Prizes, 78
The Gas Section of the Catalogue—Mr. A. Vernon Harcourt on Gas and other Illuminants, 874
Inventor's Troubles, An, 545, 1056
Ipswich Gas Supply, 353, 785
Kenilworth, Opening of New Water Works at, 18
Kensington Steam Roller Case, The, 1087, 1149, 1212
Kent Water Company's Bill, The Rejection of the, 1214
Kettering Water Supply, 264
Keynsham, Gas Rates at, 21
Key's Pressure Reducing Valve, Tests of, 167
Kidderminster Water Supply, 740
Kingstown (Dublin), A Water Pressure Question at, 549
Knighton, The Public Lighting of, 505
Lambert, Professor, on Artificial Illumination, 357
Lambeth Water Company, Half Yearly Report of the, 968
Lancashire, A Comprehensive Water Scheme for South-East, 306
Lancaster Corporation Gas and Water Supply, 597, 878, 1014
Leeds Corporation Gas Supply—
Abstract of Accounts, 166
Meter Testing, 71
Progress of the Gas Undertaking in 1884, 405
Quality of Gas, 406
Sunday Labour at the Gas Works, 455, 549
Leeds Corporation Water Supply—
Abstract of Accounts, 166
Dispute with Bradford, 121, 159, 217, 261, 644, 736, 879, 925, 1014, 1052
Leeds, Electric Lighting at, 644, 738
Leek Gas Supply, 71, 450, 495
Leicester Corporation Gas and Water Supply, 543, 1011
Leicester Corporation, The Proposed New Chemical Works for the, 1056
Leigh Gas and Water Supply, 1011
Lewisham, The Quality of the Gas Supply at, 124, 408
Leyton (Essex), The Public Lighting of, 456, 1056
Lighthouses, The Illumination of, 72, 165, 310, 454, 501, 783
Lighting or Paving—A Local Board Election Question, 781
Lincoln Corporation Gas Purchase Bill, The, 1152
Liverpool Corporation Water Supply—
Bootle, The Supply of, 167
Deacon's, Mr., Report on the Vyrnwy Scheme, 641
The Accounts of the Water Department for 1884, 1151
Threatened Water Famine, 1188
Vyrnwy Scheme, The Cost of the, 263, 451, 502, 594, 641, 871, 1203
Liverpool Corporation Water Supply (*continued*)—
Water Committee and their Coal Contracts, 882
Water Committee and the Engineers, 502, 642, 827, 878, 1053, 1153
Liverpool, Gas Consumers' Grievances in, 124
Liverpool Gas Fittings Company, Annual Report of the, 903
Livesey, Mr. G., Complimentary Dinner to, 1007
Llandudno, Gas and Water Affairs at, 549
Local Government Board Inquiries—
Batley, 642
Blackrod, 455
Brighouse, 966
Darlington, 645
Elland, 596
Gainsborough, 122
Haverhill, 262
Holywell, 1217
Ilkeston, 790
Kidderminster, 740
Kingstown, 970
Market Harborough, 644
Milton-next-Sittingbourne, 170
Oldbury, 682
Queenstown, 169
St. George's-in-the-East, 639
Sutton-in-Ashfield, 124
Walton-le-Dale, 689
Wellingborough, 1215
Long Eaton Gas Works, Proposed Purchase of the, by the Local Board, 970, 1152
Loughborough Water Supply, 168, 1056, 1153
Lower Thames Valley Drainage, The, 34, 77, 677
Lower Thames Valley Main Sewerage Bill, 1008
Luton Gas Works, New Washer Scrubber for the, 405
Lyndhurst Gas and Water Supply, 148
Mablethorpe, Lighting of, with Gas, 31
Macadam, Dr. S., on the Sanitary Aspects of Cooking and Heating by Gas, 731
Madeley Gas Works, Proposed Purchase of the, by the Local Board, 118
Maidstone Water Bill, The, 170, 505
Main Laying Operations, Householders and, 789
Malton, The Use of Gas for Cooking Purposes at, 351
Manchester Association of Employers and Foremen, Annual Dinner of the, 304
Manchester Corporation Gas Supply—
Appropriation of Gas Profits, 876, 1056
Testing Gas Meters, 966
Manchester Corporation Water Supply—
Report of the Water Committee, 260
Report on the, by Dr. Carrington, 1057
Reservoir Capacity, 970
Thirlmere Scheme, 31, 74, 881, 1152
Mann's High Pressure Cistern Valve, 594
Mansfield Gas Supply, 861
Margate, The Public Lighting of, 202
Market Harborough Water Supply, 644, 920
Market Weighton Water Works, Commencement of the, 787
Marlborough, The Public Lighting of, 689
Marple Gas Works, Proposed Purchase of the, by the Local Board, 263, 449, 789
Marsden Gas Works, Proposed Purchase of the, by the Local Board, 505
Masonic, 549, 789, 1000
Mauritius Gas Company, Annual Report of the, 785
Meteorological Society, The Royal, and the Decrease in the Water Supply, 736
Meter Inspector, An Enterprising, 452
Meter, The Supply of Water by, 969
Meters, Deposits on, in Stockport, 505
Metropolis Gas Supply—
Chief Gas Examiner's Reports, 68, 680, 1147
Haywood's, Mr. W., Report to the Commissioners of Sewers on the Public Lighting of the City in 1884, 733
Public Lighting in South London, 1057
Public Lighting in St. George's, Hanover Square, 170
Reduction of Price for Public Lighting by the Chartered Gas Company, 102
Reports to the Metropolitan Board of Works, 78, 264, 456, 645, 833, 1015, 1218
Testing Arrangements of the Metropolitan Board, 253, 402, 499, 589
Metropolis Water Supply—
Analysts' Reports on the, 968
A Subterranean Reservoir, 308
Constant Supply, 451, 505, 549, 639, 881
Court of Common Council, 167, 406
Firth's, Mr., Return as to the London Water Companies, 757
Frankland's, Dr. E., Report to the Registrar-General for 1884, 683
Harrison's, Mr. J. T., Scheme for an Improved Supply, 73
Lambeth Water Company's Extension Works, 167, 264, 298
Local Government Board Inquiry in St. George's-in-the-East, 639
Radcliffe's, Dr. C. B., Scheme for an Improved Supply, 166
Registrar-General's Returns, 121, 308, 503, 736, 924, 1151
Scarcity of Water in South London, 788
Thames, The, as a Source of Water Supply, 30, 78
Vestries and the London Water Companies, 546, 736, 1056, 1097, 1146
Water Companies' Powers, 204, 260, 359, 449, 496, 832

Metropolitan Board of Works—
Dibdin's, Mr. W. J., Report on Standards of Light, 733
Further Powers Bill, 77, 121, 923
Gas Testing Arrangements, 253, 402, 499, 589
Report for the Year 1884, 875, 924
Reports on the Metropolis Gas Supply, 78, 264, 456, 645, 833, 1015, 1218
Water Companies' Powers, 204
Water Supply at Fires, 159
Middlesbrough Gas and Water Supply, 1015, 1094
Middleton and Tonge Gas Supply, 1095
Milton-next-Sittingbourne Water Supply, 170
Mitcham, Proposed Private Gas Works at, 78, 505, 642, 1004
Monte Video Gas Company, 912, 965
Monte Video Water Company, Annual Report of the, 597
Much Wenlock Gas Works, Proposed Purchase of the, by the Local Board, 1100, 1152
Municipal and Sanitary Engineers, Association of, 785, 829, 969
Murdoch, Proposed Memorial to, 1007
Naples, Opening of Water Works for, 880
Natural Gas—
Calorific Value of, as Compared with Coal, 926
Dangers of, 245, 362, 501
Use of, in America, 925
Neath Gas, The Quality of the, 120
Neath Water Bill, Opposition to the, 311, 505, 595, 686, 924
Nelson Water Supply, 76
Newark, A Water Analysis Squabble at, 32
Newbury Gas Supply, 923
Newcastle, The Opening of Roads at, 1153
Newcastle-under-Lyme Gas Supply, 1095
Newcastle-upon-Tyne and Gateshead Gas Company, Annual Report of the, 302
Newcastle-upon-Tyne Gas, The Quality of the, 115, 255
Newport (Mon.) Gas Works Benefit Society, 309
Newquay Water Supply, 169
Newton, Mr. J., on Heating, Lighting, and Ventilation, 629
New York City—
Gas Affairs in, 638, 923, 966, 1152, 1217
Proposed New Water Supply for, 1100
New Zealand, Gas Matters in, 501, 550
Nictheroy (Brazil) Gas Company, Annual Report of the, 873
Nitrate of Soda, The Market for, in 1884, 24, 361
Nitrous and Nitric Acids, M. Greinert on the Occurrence of, in Potable Waters, 122
Northampton Water Supply, 76, 148, 217, 456, 503, 549
North British Association of Gas Managers—
Proposed Memorial to Murdoch, 1007
Suggestions for Papers, 587
Northfleet, Lighting of, with Oil, 407
Nottingham Corporation Gas and Water Supply, 68, 1049, 1214
Odessa Water Company, Annual Report of the, 639
Oil Gas, Illumination by Compressed, 259
Oil, Public Lighting of Northfleet with, 407
Oldbury Gas Supply, 544, 682
Oldham Gas and Water Supply, 1006, 1012
Ottoman Gas Company, Half Yearly Report of the, 596
Oxford Corporation Water Bill, The, 33, 362
Oxford Water Supply and Drainage, 597, 1055
Paddington, Public Lighting in, 261
Papers, Suggestions for, 587
Paris Gas Company, Report and Accounts of the, 824
Parkes Museum, Lectures at the—
Fletcher, Mr. T., on Smoke Abatement, 587
Frankland, Dr. P., on Water Supply, 358
Robinson, Mr. H., on River Pollution, 455
Paterson, Mr. M., on the Future Water Supply of Bradford, 503
Petersfield, Gas Exhibition at, 785
Plymouth and Stonhouse Gas Supply, 33, 1217
Plymouth and Stonehouse Water Supply, 1146
Port St. Mary (Isle of Man), Proposed Water Works for, 1056
Presentations—
Barton, Mr. J., 153
Cross, Mr. F. W., 77
Edwards, Mr. H., 586
North, Mr. F. J., 732, 927
Stansfield, Mr. W., 148
Stevenson, Mr. G. E., 244
Thomas, Mr. P., 861
Tooley, Mr. G., 1048
Pressure of Water, A Question as to, at Kingstown (Dublin), 549
Preston Gas Company, 311
Preston Water Supply, 33
Price of Gas in the United States, The, 501
Private Bill Legislation, The History of, 1100
Private Gas Works, Proposed, at Mitcham, 78, 505
Profits, The Disposal of Gas, 597, 681, 854, 876, 881, 1056
Provincial Towns, Charges for Gas and Water in, 1052
Provisional Orders, Applications for—
Chelmsford, 494
Dover, 25, 68, 116, 259
Great Grimsby, 118, 208
Lyndhurst, 148
Provisional Orders, Gas and Water (Session 1885), 784, 878, 923
Public Institutions, The Use of Gas for Cooking Purposes in, 882
Public Lighting Dispute at Tamworth, A, 967
Public Lighting of the City of London in 1884, The, 733
Purchase of Gas and Water Works by Local Authorities, Proceedings in Regard to the—
Bromsgrove, 455
Burnham, 120, 454
Chichester, 261
Clevedon, 262
Coventry, 33, 288, 454, 1051
Croydon, 302, 592
Flint, 311
Harrow, 549, 645, 1056, 1218
Haverhill, 262
Hull, 309
Long Easton, 970, 1152
Madeley, 118
Maidstone, 782
Marple, 263, 449, 789
Marsden, 505
Much Wenlock, 1100, 1152
Stalybridge, 24, 208, 257, 351, 545, 589, 644, 688, 784, 828, 903
Swindon, 69, 311, 486
Purification of Water, Dr. A. R. Leed's System for the, 122
Queenstown Water Supply, 169
Radcliffe's, Dr. C. B., Scheme for an Improved Water Supply for London, 166
Rainham (Essex) Water Supply, 547
Ramsey (Isle of Man), New Reservoir at, 1217
Ramsgate Corporation Gas and Water Supply, 1010
Rating of Gas and Water Works, 58, 71, 122, 169, 350, 362, 484, 596, 686
Rats and Gas Pipes, 1147
Reading, The Charge for Water at, 724
Redcar, Proposed Electric Experiment at, 78
Redhill Gas Works, The Assessment of the, 350
Reductions in Price, 68, 102, 169, 258, 362, 394, 397, 455, 505, 545, 828, 875, 876, 970, 1048, 1217
Regenerative Gas Kiln, A Continuous, 1094
Residuals, The Recovery of, from Blast Furnaces, 734.
Residuals, The Reduced Value of, 644, 645, 677, 869, 881
Retford Water Supply, 1217
Rhondda Valley, Gas Agitation in the, 71, 408
Richmond (Surrey), The Well Boring Operations at, 31, 168, 878, 1098
Richmond (Yorks) Gas Works, The Extension of the, 1056
Rio de Janeiro Gas Company, Annual Report of the, 680
Rio de Janeiro, The Lighting of, 29, 118, 208
Ripon Water Supply, 724, 1095
River Pollution, Mr. H. Robinson on, 455
Roads, Liability of Local Authorities for Damage to, 34
Roads, The Opening of, by Gas and Water Companies, 359, 504, 589, 680, 1153
Rochdale Corporation Gas and Water Supply—
Annual Report of Gas and Water Committees, 1052
Charge for Water, 502
Extension of Gas Works, 303, 645
Leakage in a Reservoir, 925, 1098
Price of Gas in Out-Townships, 409, 505
Progress in 1884, 29, 877
Rotherham Corporation Gas Supply—
Discounts on Gas Accounts, 70
Profit of the Gas Undertaking, 881
Reduction in Price of Gas, 258
Rotherham Corporation Water Supply, 689, 832
Rotherhithe, Fatal Gas Explosion in, 781, 826, 870
Runcorn Gas Bill, The, 263
Sales of Shares, 69, 169, 217, 409, 455, 495, 549, 586, 644, 688, 716, 781, 920, 970, 1000, 1056, 1100, 1152, 1217
Salford, Gas Profits and Expenditure at, 681
San Paulo Gas Company, Annual Report of the, 636
Scotland, The Assessment of Water Works in, 596, 686
Scotland, Notes from, 32, 76, 123, 168, 216, 262, 310, 360, 407, 453, 504, 548, 596, 643, 687, 739, 788, 831, 880, 926, 1013, 1055, 1098, 1151, 1216
Sewage as Fuel, 264
Sewage, Gas from, 120
Sewage Question, Mr. H. Robinson on the, 312
Sewage, The Treatment of Metropolitan, 77, 102
Share List of Gas and Water Companies, 34, 78, 125, 170, 217, 264, 312, 362, 409, 455, 506, 550, 597, 645, 689, 740, 790, 833, 882, 928, 970, 1015, 1057, 1100, 1153, 1218
Sheffield, Improved Street Lighting at, 543
Sheffield United Gas Company, Half Yearly Report of the, 500
Sheffield Water Company, The, and the Town Sewerage Works, 503
Shipley Water Supply, 77
Siemens, The Career and Inventions of the late Sir William, 927
Singapore Gas Company, Annual Report of the, 790
Skipton Water Supply, 963
Slough, Gas Agitation at, 117, 169, 362, 505, 593, 781, 1212
Smethwick Gas Supply, 740
Smoke Abatement Institution, Report of the Council of the, 212
Society of Arts—Inventions Exhibition Prizes, 78
Society of Chemical Industry, 1056
Society of Engineers, 148, 454, 965, 1188, 1209
Society of Telegraph Engineers and Electricians, 204
Southampton Corporation Bill, The South Hants Water Company and the, 549
Southampton Water Supply Scheme, The, 215
South Foreland, The Lighthouse Experiments at the, 783
South Metropolitan Gas Company—
Amalgamation with Woolwich Companies, 33
Changes in the Board, 33
Half Yearly Accounts, 348
Half Yearly Report, 302
Southport Gas Supply, 923
South Shields Gas Supply, 408
Southwark and Vauxhall Water Company's Bill, The, 77, 456
Sowerby Bridge Gas Works, Proposed Extension of the, 1149
St. Albans Water Supply, 452
St. Helens Gas Works, Extension at the, 454
St. Helens, New Water Works for, 640, 1215
St. Thomas (Swansea) Water Supply, 1153
Stafford Corporation Gas and Water Supply, 124, 828, 876, 922
Stafford, Mr. J. E., on the Burnley Corporation Gas and Water Works, 829
Stalybridge Gas Works, The Proposed Purchase of the, by the Corporation, 24, 208, 257, 351, 545, 589, 644, 688, 784, 828
Stamford Water Supply, 262
Steam Rollers, Gas Companies and the Use of, 303, 505, 1087, 1149, 1212
Stockport Corporation Gas Supply, 1094
Stockton and Middlesbrough Water Supply, 124, 264
Stockton Corporation, The, and the Letting of Gas Stoves on Hire, 643
Stoke-on-Trent Corporation Gas Supply, 33, 1217
Stone, The Public Lighting of, 217
Stony Stratford Water Supply, 217
Stopcocks on Footways, 362
Storeage of Towns' Water, 34, 1218
Storm Water, Corporations and the Removal of, 505
Strasburg, The Lighting of, 688
Stratford-on-Avon Corporation Gas Supply, 1051
Strike in the Gas Tube Trade, 202, 361
Subways for Gas and Water Pipes, 740
Sulphate of Ammonia—
Market for, in 1884, 25
Use of, in Gardens, 78
Sunday Labour in Gas Works, 455, 594, 682, 961, 1014, 1041
Sutton-in-Ashfield, The Water Supply and Sewerage of, 124
Sutton (Surrey) Gas Works, Nuisance at the, 360, 409
Swansea, Gas and Water Affairs at, 118, 1100
Swindon Local Board, The, and the Gas Company, 69, 311, 486
Tamworth, A Public Lighting Dispute at, 967
Tar Distiller, The Failure of a, 1014
Taunton Water Supply, 925
Taxation of Light, The *Globe* on the, 961
Taylor, Mr. J., on the London Water Companies and their Thames Supply, 30
Temesvar, The Electric Lighting of, 34, 879
Tender, Action in Regard to a, 452, 787
Thames, The Condition of the, 122
Thames Valley Drainage, The, 34, 77, 677
Thirlmere Water Scheme, The, 31, 74, 881, 1152
Tipton Local Board Gas Supply, 33, 903
Todmorden Water Works, The Commencement of the, 1153
Torquay Water Supply, 76, 832
Totnes Gas Company, 881
Tottenham and Edmonton Gas Company, Half Yearly Report of the, 447
Trains, Lighting of Railway, by Gas, 922
Tyldesley Gas Works, Subsidence of the, 117, 169, 1152
Tyldesley, The Price of Gas at, 455, 550, 594
Uckfield Gas Company, 881
Ulverston Gas and Water Supply, 1052
United States, Price of Gas in the, 501
Unwin, Professor, on Water Motors, 737
Uxbridge Gas Supply, 119
Wakefield Water Supply, 311, 736
Wales, Gas Agitation in South, 449, 544, 832, 873
Wallasey Gas Works, Extensions at the, 923
Wallingford, New Water Works for, 871
Walsall Gas Supply, 860
Walthamstow, The Public Lighting of, 153, 1015
Walton-le-Dale Water Supply, 689
Warminster Water Supply, 904, 1015
Warrington Gas Supply, 689, 879
Washer Scrubber, A New, for the Luton Gas Works, 405
Waste of Water, 77, 456
Water Companies, Mr. Firth's Return as to the London, 737, 786, 829
Water Companies (Regulation of Powers) Bill—
London Water Companies and the, 546, 685
Vestries and the, 736, 788, 1097
Water Consumers and the, 1097
Water Main, Lowering a, While in Use, 545
Water Motors, Professor Unwin on, 737
Water Supply, Decrease in the, 736
Water Supply, Neglecting to Provide Proper, 1095
Water, The Selection of, for Domestic Supply, Dr. P. Frankland on, 358
Water, The Storeage of, 34, 1218
Water Works Clauses Act (1847) Amendment Bill, The London Vestries and the, 408, 1051
Watford Water Works, Assessment of the, 122

Waverley Association of Gas Managers, 688
Wellingborough Water Supply, 169, 217, 408, 1215
West Bromwich Gas Works, Proposed Extension of the, 688
West Ham Gas Supply, 288
West Ham, Water for Road Watering at, 124, 204, 1093
West Middlesex Water Company, Half Yearly Report of the, 829
Weymouth Gas Supply, 312
Wigan Corporation Gas Supply—
Burgess Auditors' Report, 681
Extension of the Gas Works, 116, 192, 257, 359, 506, 591, 644, 963
Finances of the Gas Department, 116, 449, 591, 828, 869
Professional Auditor's Report, 784
Williams, Mr. M., on Our Subterranean Metropolitan Reservoir, 308
Wimbledon, The Public Lighting of, 169, 506, 1093
Windermere Lake, The Condition of, 1014
Winship, Mr. G., on the Supply of Water by Meter, 969
Wolverhampton, The Price of Gas at, 790
Wood, Mr. J. T., on the Storeage of Towns' Water, 34
Worcester Water Supply, 309
York, The Public Lighting of, 70, 263
York United Gas Company, Half Yearly Report of the, 202

GENERAL INDEX.

"A. B. C." Process, Dr. C. M. Tidy and Professor Dewar on the, 1140
Abel, Sir F., on Dangerous Oils, 621
Accounts, Gas—
Amalgamated, at Birmingham, 207
Field's, Mr., Analysis of, for 1884, 1039
Metropolitan Companies', for 1884, 665, 671
Accounts, The Metropolitan Water Companies', for 1884, 1199
Actinometer, A New, 338
Adams, Professor, on the Lighthouse Experiments at the South Foreland, 250
Adelaide (South Australia), Gas Affairs in, 54, 66
Affleck *v.* Birmingham Corporation, 207
Air, The Effects of Heating, on Combustion, 1182, 1210, 1211
Air, The Heating of, and Its Value in Regenerative Furnaces, 152, 429, 436
Alarm Candle Balance for Photometers, An, 1076
Alexandria Water Company, Limited, 1097
Alfreton Water Supply, 881
Alliance and Dublin Consumers' Gas Company, 238, 256, 353, 448, 637, 966
Alnwick, Artesian Well Boring at, 967
American Correspondent, Communications from Our—
American Gaslight Association, 103, 196
Boston Gas Affairs, 486, 717, 769, 860
New York Gas Affairs, 532, 638, 673, 1002, 1125
American Gaslight Association—Twelfth Annual Meeting, 103, 196
American Society of Gas Lighting, 16, 107
Ammonia—
Death from the Manufacture of Sulphate, 113
Market for Sulphate in 1884, 25
Production of, from Nitrogen of Minerals, 294
Use of Sulphate in Gardens, 78
Value of Sulphate as a Manure, 619, 770, 811, 903, 909, 1047
Analysis of Gas, Technical, 815, 817
Anderson, Mr. W., on the Gas Engine, 1045
Anthracene from Water Gas Tar, 197
Anti-Fluctuator, Schrabetz's, 195
Antwerp Exhibition, British Jurors at the, 1142
Antwerp Water Company, 686
Aqueous Vapour, The Absorption of Radiant Heat by, 860
Arbitration Proceedings—
Dorking Water Works, 169, 207
Dukinfield and Denton Gas Undertaking, 21, 23, 253, 304, 355, 403
Stockton and Middlesbrough Water Works, 264
Wakefield Water Works, 311
Arbitration, The Law of, 993
Argand Gas Burners, An Adjustable Cap for, 718
Armstrong, Professor—
Coal Distillation and Gas Manufacture, 949, 960
Products of the Manufacture of Gas from Petroleum, 1209
Artesian Well Boring at Alnwick, 967
Artificial Illumination, Professor Lambert on, 357
Asbestos Enamel, 244
Asbestos for Sealing Retort Lids, 251
Ascot District Gas Company, 311, 403
Ashmore and While, Acquisition of the Business of Messrs., by a Limited Liability Company, 825
Ashton Gas Company and the Consumers, 357, 408
Ashton Gas Company and the Sliding Scale, 146, 160, 190, 205, 251, 263
Ashton-under-Lyne and District Water Supply, 72, 167, 594, 1012
Assessment Appeals—
Birstal Local Board, 1093
Croydon Gas Company, 1088
Halifax Union, 71
Leicester Corporation, 65, 169, 970, 1011
Middlesbrough Corporation, 484, 1015
Radcliffe and Pilkington Gas Company, 362, 401
Redhill Gas Company, 350, 382, 394
Sheffield Water Company, 728, 964
South Staffordshire Water Company, 496
Sutton, Southcoates, and Drypool Gas Company, 58
Watford Local Board, 122
Assessment of Water Works in Scotland, 596, 686
Aston, The Public Lighting of, 454
Attfield, Professor, on Water and Water Supplies, 479
Automatic Retort Company, 789
Australia, The Legal Status of Gas Works in South, 202
Ayrton and Perry, Professors, on the Economical Working of Incandescent Electric Lamps, 622
Bahia Gas Company, 903, 1008
Baildon Water Supply, 688, 881, 927
Bailey, Alderman, on Cheap *versus* Good Gas, 1086
Balances, Useful Applications for Small, 1037
Ballard *v.* Tomlinson, The Case of, 336, 345
Banbury Gas Company, 353
Bangor Gas and Water Supply, 740, 881, 1076
Barnet District Gas Company, 350
Barnet, Pollution of a Brook at, 299
Barton, Mr. J., of Wigan, Presentations to, 153, 543
Barton-on-Humber Water Company's Provisional Order, The, 122
Barton Regis Water Supply, 644
Basingstoke Water Supply 355, 861, 870, 1153
Bath Gas Company, 397
Batley Water Supply, 968, 1151
Batteries, New Primary, 58, 100
Battery, A Gas, 909
Beckton Gas Works, Threatened Attempt to Blow up the, 202
Beilby, Mr., on the Production of Ammonia, 294
Belper Water Supply, 644
Benzolized Gas, An Experiment with, 667
Beyrout Water Company, 165
Bills, Parliamentary Committees on Private—
Ashton-under-Lyne Water, 539, 586
Bradford Water Works and Improvement, 869
Bury Improvement, 822
Horsforth Water, 584
Kent Water, 1091, 1186
Maidstone Water, 584
Northwich Local Board Water, 632
Northwich Water, 632
Neath Water, 680, 779
Southampton Water, 1005
Southwark and Vauxhall Water, 1187
Stalybridge Gas Transfer, 726
Unopposed Measures, 586, 780
Woking Water and Gas, 632
Bills, Progress of, 445, 583, 631, 780, 868, 914, 964, 1049, 1091, 1186, 1188, 1212
Birkenhead Corporation Gas Supply—
Exhibition of Gas Appliances, 255, 450, 504, 639
Local Tradesmen and the Exhibition, 494, 682
Sale of Corporation Land, 119
Birkenhead Corporation Water Supply, 874
Birmingham Corporation Gas Supply—
Accounts for 1884, 352
Amalgamated Gas Accounts (Mr. Affleck's Case), 207
Cutting Off Gas, 238
Embezzlement by a Gas Official, 207
Gas and Meter Testing, 77
Gas Committee's Report, 303, 335
Birmingham Corporation Water Supply—
Extension of the Works, 1053
Smith, Mr. W. B., and the Corporation, 169, 497
Water Committee's Report, 360
Blackburn Water Supply, 1012
Blackrod Water Supply, 455
Blackwood's Magazine on Gas Stocks in 1884, 335
Blast Furnace Gases, The Fuel Value of, 767
Blast Furnaces, The Recovery of Residuals from, 734
Board of Trade—
Deputation of Dynamicables to the, 241
Gas Testing in the Metropolis, 478
Inquiry at Holywell, 546, 689
Provisional Order Financial Clauses, 950
Report on Gas and Water Bills and Orders (Session 1885), 405
Return as to Gas Undertakings in the United Kingdom, 53, 57
Boghead Cannel Coal, Discovery of More, 908
Boiler Feed Purifiers, Stollwerk's, 195
Boilers and Furnaces, Gas for, 71
Boilers, Preventing Incrustation in, 15
Bolton Gas and Water Supply, 34, 121, 879, 961, 1057
Bombay Gas Company, 832, 921
Bonds, Redemption of Water, at Doncaster, 1097
Boston (U.S.A.), Gas Affairs in, 14, 99, 259, 486, 717, 769, 860
Botley, Mr. C. E., on the Lighting of Railway Carriages, 287
Bott, Dr. W., on Hempel's Methods of Gas Analysis, 815, 817
Bowden, The Lighting of Great, by Gas, 33
Bower-Barff Process, The, and the Strength of Iron, 435
Bower Gas Lamps, The, at Bradford, 118
Bradbury and Hirsch, Messrs., on the Market for Sulphate of Ammonia and Nitrate of Soda in 1884, 25
Bradford Corporation Gas Supply—
Alleged Embezzlement by an Official, 1147, 1212
Appropriation of Gas Profits, 306
Finances of the Gas Department, 785
Price of Gas, 543
Purchase of Messrs. Ripley's Works, 166, 306, 478, 499
Bradford Corporation Water Supply—
Defective Reservoir, 968
Dispute with Leeds as to Boundary, 121, 159, 217, 261, 644, 736, 879, 925, 1014, 1052
Paterson, Mr. M., on the Future of the, 503
Progress of the, in 1884, 785
Proposed New Gathering Ground, 1217
Bradford Road, Manchester, Gas Works, The Management of the, 484
Bramwell's, Lord, Arbitrations Bill, 993
Bramwell's, Sir F., Addresses at the Institution of Civil Engineers, 97, 99, 104, 827
Brentford Gas Company, 302, 402
Brierfield Gas and Water Supply, 970
Brighouse Gas Supply, 833, 966, 1056
Brighton and Hove Gas Company, 505
Bristol Gas Company, The, and the Bristol Sanitary Authority, 20, 345, 382, 399, 401, 449, 526, 541
Bristol Water Company, 586, 595, 633, 642, 668
Bristol Water Works Extensions, 546
Bristol Workhouse, The Water Supply of the, 76, 125, 406, 547, 595
British Association of Gas Managers, The Founders of the, 956
Brussels General Gas Lighting and Heating Company, 68
Brussels Municipal Gas Supply—
Accounts for 1884, 592
Day Consumption of Gas, 58, 441, 535
Differential Charges for Gas, 146, 341
Buda-Pesth Water Works, The Pumping Machinery at the, 1215
Buenos Ayres (New) Gas Company, 969, 1009
Builder, Unlawful Use of Water by a, 505
Burnham Gas and Water Supply, 120, 169, 454, 595
Burnley Corporation Gas Supply—
Price of Gas, 644, 681, 876
Reduced Value of Residuals, 1095
Report of Mr. S. P. Leather, 1150
Stafford, Mr. J. E., on the Gas Works, 829
Burnley Sewage Works, 785
Burnley Water Supply, 31, 634, 829, 1095, 1150
Burslem Gas Supply, 922
Burton-on-Trent Gas Supply, 881
Bury District, Charges for Water in the, 124, 215, 309, 407, 505
Business Changes with the New Year, 29
Buxton Gas Supply, 922
Buxton, Sewage Treatment by Lime at, 712, 812, 951
Cabman, Action by a, against The Gaslight and Coke Company, 824
Cadiz Water Company, 789
Caink's Automatic Pressure Changing Gas Governor, 961
Calcium, Sulphide of, for Gas Purification, 1046, 1090
Calcium, Sulphur Compounds of, 1045, 1211

Calorific Value of Coal Gas, 1046, 1090
Candelaria Water Company, 264
Candle Balance, An Alarm, for Photometers, 1076
Candle Flames, Variations in, during Photometrical Operations, 394, 442
Canterbury Gas and Water Supply, 406
Canterbury, The Closing of Private Wells in, 100, 114, 148, 299, 644, 970, 1218
Carbon Bisulphide, The Solubility of, in Water, 816
Carbon Blast, The, for Extinguishing Fires, 103
Carbon in Steel, The Condition of, 299
Carbonic Acid Gas, A New Way of Getting Rid of, 431
Carbonic Acid—
  A Test for, 767
  Effect of, on the Illuminating Power of Coal Gas, 1143
  Removal of, from Coal Gas, 1001
Cardiff Corporation, Hill *v.* the, 1145
Cardiff, The Public Lighting of, 169
Cardiff Water Supply, 452, 787, 789, 928, 1145, 1153, 1217
Carlisle, Exhibition of Gas and Water Appliances in, 688, 710, 728, 768, 783
Carlisle Gas Exhibition Lectures—
  Dixon, Mr. H. B., on Gas Light and Gas Heat, 730
  Macadam, Dr. S., on the Sanitary Aspects of Heating and Cooking by Gas, 731
Carlisle, The Water Supply of, 124, 311
Carnarvon Gas Supply, 882, 1051
Carr, Mr. W., on the Rating of Gas Works, 1170
Castings, Wrought Iron, 956
Caterham Water Company's Bill, 32, 311, 362, 502
Cements, The Hardening of, 152
Chalk Formation, The, as a Source of Water Supply, 191
Chalk, Pollution of a Well in the, 336, 345
Chamberlain, Mr. J., on the Effects of Heating Air upon Combustion, 1211
Chamberland's, M., New Microbe Filter, 387
Charcoal Fumes and Illuminating Gas, The Relative Fatal Effects of, 860
Charcoal Kilns, The Production of Residuals from, 673
Charges for Gas and Water in Provincial Towns, 1052
Cheap Gas for Cooking Purposes, 302, 362
Chelsea Water Company, 1140, 1148
Cheltenham Water Works, 1217
Chemical Society—
  Armstrong and Miller, Professors, on the Manufacture of Gas from Petroleum, 1209
  Veley, Mr. V. H., on Sulphur Compounds of Calcium, 1045
  Wright, Mr. L. T., on the Luminosity of Methane, 435
Chemical Theory of the Production of Illuminating Gas, M. Guéguen on the (*continued from preceding Volume*), 59, 107, 157, 250, 339, 393
Chesterfield Water Supply, 503
Chichester Gas and Water Works, 261
Chlorimeter, A New Form of, 1142
Cholera, Outbreak of, 996, 1040
Cistern Valve, Mann's High Pressure, 594
Civil Engineers, Sir F. Bramwell on the Work of, 827
Clark's Regenerative Gas Lamp, 435, 484
Cleckheaton Gas Supply, 832
Cleethorpes, Gas *versus* Electric Lighting at, 928
Clemenshaw's, Mr. E., Light for Lectures, 244
Clerk, Mr. D., on Gas Engines, 450
Clifford, Mr. F., on the History of Private Bill Legislation, 1202
Clippens Oil Works, Death of a Workman at the, 113
Clitheroe Gas and Water Supply, 832
Clyde, The Pollution of the, 1200
Coal—
  Calorimetry of, 859
  Combustion Heat of, 1076
  Compressed Blocks of, for Blast Furnaces, 338
  Composition and Products of, 114, 163
  Demand for, for Gas Production, 145
  Field, New, in Fifeshire, 76
  Fire, An Electric Imitation of a, 195
  Gas as a Narcotic, 385
  Seams, The Temperature of, 532
  Spontaneous Combustion of, 241
  Storeage of, 672, 1090
  Supply, Possible Exhaustion of the British, 145, 150, 575, 623, 666, 722, 777, 855
  Waste Heaps, Utilization of, for Gas Manufacture, 969
Coal Tar—
  Antiseptics and Disinfectants, 678
  New Colouring Matters from, 1143
  New Product, 387
Cocks, Mr. J., on the Administration of Foreign Gas Works, 1234
Coke, Mr. W. A. Tilden on the Density of, 61
Coke Ovens, The Production of Residuals from, 1204
Colchester, Gas *versus* Electric Lighting at, 306, 312, 337, 386, 394, 408, 573
Colchester Water Supply, 78
Coleman *v.* West Middlesex Water Company, 995, 1006
Collection of Water Rents, 963
Colne Gas Supply, 311
Colne Vale Gas Undertaking, 670
Colne Valley Water Company, 261
Combustion, Invisible, 342, 395, 494
Commercial Gas Company—
  Deficient Illuminating Power of Gas, 334, 345
  Half Yearly Meeting, 618, 635
  Report and Accounts, 570, 635
Competition, A Gas Cooking, 1199
Competition in Gas Supply, 734
Concrete, The Strength of Clinker, 1142
Congleton Gas Supply, 688
Consumers, Practical Hints for Gas, 574
Contract Competitions, 527
Contractors, Action against the East Worcestershire Water Company by, 446
Conway Gas Supply, 450
Cooking, The Use of Gas for, 722, 882, 910, 958
Cooper Coal-Liming Process, The, 17, 1205
Cornuault, M., on the Gas Consumption of London and Paris, 666, 906, 954
Corporations as Traders, 525
Cottenham Water Supply, 881
Coventry Gas Supply, 257
Coventry Gas Works, Transfer of the, to the Corporation, 33, 288, 454, 1051
Cowan, Mr. W., on the Automatic Regulation and Changing of Gas Pressure, 484
Crimp, Mr. W. S., on Street Lighting, 1204
Cross, Mr. F. W., Presentation to, 77
Crova's, M., Diffusion Photometer and the Photometry of Intense Lights, 151
Croydon—
  Assessment of the Gas Works, 1088
  Exhibition of Gas Appliances, 1007, 1056
  Proposal to Purchase the Gas Works, 286, 302, 402, 592
Crystal Palace Gas Company, 447, 540, 781
Crystal Palace Exhibition, 1882-3—
  Accounts of Gas Section Committee, 816
  Dinner to Mr. G. Livesey, 999, 1007
  Review of Gas Section Committee's Report, 384, 432, 482 ,529, 620, 672, 716, 764, 814, 858, 907, 954, 997, 1042, 1088
Cutler *v.* Windsor Corporation, 496
Cutting Off Gas and Water Supply, Disputes as to, 114, 162, 207, 239
Dalton, Mr. W. H., on the Chalk Formation as a Source of Water Supply, 191
Darlington Gas and Water Supply, 645, 1053
Darwen Water Supply, 547, 1055
Day Consumption of Gas, The, 58, 263, 341, 430, 441, 505, 535
Deaths—
  Bartholomew, Mr. H., 354
  Clutterbuck, Rev. J. C., 913
  Deykin, Alderman, 996
  Hildyard, Capt., 213
  Hill, Mr. D., 32
  Hunter, Mr. T., 296
  Mallet, M., 288
  Nelson, Sir T., 240
  Puckle, Dr. G., 102
  Samuda, Mr. J. D'A., 832
  Servier, M., 1040
  Silliman, Professor, 100
  Stibbs, Mr. J., 644
Delahaye, M., on the Possible Exhaustion of Coal Mines, 855
Dempster, Messrs. R. and J.—
  New Works at Newton Heath, 72, 1012
  Improved Gas Plant Manufacturing Machinery, 920
Denayrouze's, M., Proposed Prizes for the Encouragement of Invention, 99
Denton Gas Committee, The, and the Consumers, 739
Denton Gas Consumers, The, and their Gas Bills 407, 448
Deposits on Meters, 505
Depreciation Funds, The Formation of, 627, 777
Derby Gas Company, 454
Destructive Distillation, 675, 721, 1201
Diarrhœa, Epidemic of, at Hull, 644, 830, 879
Dibdin, Mr. W. J., on Standards of Light, 570, 576, 626, 673, 713, 718, 863
Differential Charges for Gas, 21, 58, 125, 146, 341, 1053
Diffusion Photometer, A New, 151
Dilution, The Influence of, on the Heating Power of Coal Gas, 485
Dinner to Mr. G. Livesey, 999, 1007
Directors, An Outcry against, 617
Directory, The Gas and Water Companies', for 1885, 999
Discounts on Gas Accounts, 109, 362, 740, 903
Dixon, Mr. H. B., on Coal Gas, 62, 730
Dobbs Agitation, The Costs of the, 192
Doncaster Gas Supply, 362, 740, 903
Doncaster Water Supply, 33, 309, 550, 1097
Dorking, The Public Lighting of, 1217
Dorking Water Company, 169, 207
Dover Gas Company, The, and their Provisional Order, 25, 68, 98, 116, 238, 258, 361, 500, 549, 711
Drainage of the Lower Thames Valley, 34, 55, 77, 100, 572, 677, 1088
Draper's, Mr. H. N., Method of Repairing Sulphuretted Hydrogen, 14
Droitwich Water Supply, 970
Dublin Corporation, The, and the Alliance Gas Company, 238, 256, 353, 448, 966
Dublin Corporation, The, and the Water Supply of the Out-Townships, 970
Dukinfield and Denton Joint Gas Undertaking, Dissolution of the—
  Arbitration Proceedings, 21, 23, 253, 304, 355, 382, 403
  Arbitrator's Award, 1038, 1056
Dukinfield, Cheap Gas for Trade Purposes at, 263
Dukinfield Local Board, The, and the Stalybridge Gas Bill, 455, 589, 688
Dukinfield, The Application of Gas Profits at, 597
Dundee Gas Supply, 70, 1139, 1151
Dunedin Corporation Gas Works, 1213
Dwight's, Mr., Incandescent Water Gas Light, 735
Eastbourne, The Price of Gas at, 506
East London Water Company—
  Alteration and Provision of Fittings, 680, 781, 824, 1006, 1139, 1146
  Constant Supply at the East End, 620, 639, 881
  Half Yearly Meeting, 619, 640
  Half Yearly Report, 594
  Water Rate Disputes, 20, 21, 498
  West Ham Local Board and the, 204
East Worcestershire Water Company, The, 446
Edison, A Photometric Standard by, 956
Edwards, Mr. H., Presentation to, 586
Electrical Machinery, A Specialist on, 102
Electric and Gas Lighting for Railway Carriages, 484
Electric Currents, The Prevention of Fatalities from, 338
Electrician, Experiment in Gas Lighting by an, 667
Electric Lighting—
  Abandonment of, 670, 905, 928
  Act, Proposed Amendment of the, 30, 530, 541, 572, 687, 714
  Act, The, and the Unearned Increment, 952
  At Antwerp Balls, 670
  At Cleethorpes, 928
  At Colchester, 306, 312, 337, 386, 394, 408, 573
  At Harrogate, 311, 500
  At Leeds, 644
  At Temesvar, 34, 56, 879
  At the Inventions Exhibition, 764, 996
  At Wimbledon, 858
  Arc and Incandescent Lighting, 288, 815, 952
  Australasian Company's Affairs, 56, 481, 580
  Birmingham Bill, 14, 790
  Brush Corporation, 194, 241, 1141
  Canterbury Order Revoked, 999
  Carriage Lighting, 573
  Chelsea Order, 56
  Coope's, Mr., Experiment, 194
  Dangers, 217, 338
  Domestic, 435, 858, 905, 1042
  Dynamicables and the Board of Trade, 241
  Electrical Meter, A Mendacious, 997
  Electrical Meters, 62
  Electrical Review on the Commercial Side of, 386
  Electricians' Complaints, 14
  Energy Lost in, 484
  Fire Offices and, 572
  Fleming, Dr., on Incandescent Lamps, 952
  French Electrical Exhibition, 714
  Gas and Electric Light, 13
  Gaulard and Gibbs's Generators, 714
  Hammond Company's Winding Up, 1140
  Illuminating Power of Electric Lamps, 815
  In a Dublin Newspaper Office, 952
  In America, 101, 337, 827
  In Hackney, 125
  In London, 124, 1153, 1201
  In Shanghai, 905
  In Troop Ships, 670
  In Vienna, 832, 1086
  Incandescent Lamp Tests in America, 1152
  Incandescent Lighting in New York, 1200
  Incandescent Light Patents in the United States, 1042, 1201
  Lighthouse Illumination, 101
  Masthead Lighting, 530
  Maxim-Weston Company, 337, 386
  Methven Standard and Electric Light Photometry, 1201
  Middlesbrough, An Abortive Trial of, at, 56
  New Orleans Electrical Exhibition, 288
  Overhead and Underground Wires, 764, 904, 1042
  Phœnix Company, Acton against the, 858
  Pilsen-Joel Company, 670
  Policemen, Portable Lights for, 14, 149, 288
  Preece, Mr. W. H., and, 337, 764, 815, 858, 1042
  Primary Battery Delusion, The, 101
  Progress of, in 1884, 241
  Prospectus, A Misleading, 858
  Provincial Brush Corporation in Liquidation, 1141
  Railway Station *versus* District Lighting, 481
  Redcar, Proposed Lighting Trial at, 78
  Scrivanow Battery, The, 573
  Shop Window Lighting, 101
  South-Eastern Brush Company, 481, 530
  South Kensington Subway Lighting, 996
  Strasburg Railway Station Lighting, 150
  Street Lighting, 815
  Train Lighting, 149
  Trevisan's Battery, 715
  Trouvé's, M., Portable Lamp, 149
  Varley's, Mr., Improved Arc Lamp, 815
Electric Light Measurement, 764
Elland Gas Company, A Claim for Damages against the, 113
Elland Water Supply, 596, 1100
Elliott, Mr. A. H., on the Production of Anthracene from Water Gas Tar, 192
Ely Water Supply, 258
Employers' Liability Act, Action under the, 498
Enfield, The Use of Water from Private Wells at, 100, 113
Erith, The Public Lighting of, 682

Exhibitions of Gas Appliances, 409, 450, 499, 504, 505, 545, 593, 683, 785, 789, 829, 876, 923, 967, 1006, 1051, 1094, 1217
Exhibitions, The Conduct of Gas, 999
Explosions of Gas, 29, 125, 217, 263, 505, 781, 789, 832, 1014
Explosive Mixtures Formed with Coal Gas, The Combustion of, 1000
Fahnehjelm's Water Gas Incandescent Light, 1209
Falkirk Water Bill, 264
Farnworth, The Price of Gas at, 881, 1150
Farsley, The Lighting of a Public Footpath at, 112, 345
Fenton Gas Supply, 832
Field's, Mr., Analysis of Gas Accounts for 1884, 1039
Fifeshire, New Coal Field in, 76
Fire Alarm, Gasoline as a, 574
Fire Damp, The Utilization of, 195
Fires, Extinction of, by the "Carbon Blast," 103
Fires, The Water Supply at, 159, 167
Firth, Mr., and the London Water Companies, 479, 632, 667, 712, 737, 786, 951, 968
Fish *v.* East London Water Company, 498
Fittings, The Compulsory Alteration of Water, 113, 114, 239, 253, 263, 680, 688, 781, 824, 1006
Fletcher, Mr. T.—
  Exhibits at the Inventions Exhibition, 912
  Gas in the Workshop, 154, 251
  Heating by Radiation, 1090
  Instruction in the Use of Gas, 297
  Invisible Combustion, 395, 494
  Retort for Testing Gas Coals, 196, 1090
  Smoke Abatement, 587
Fog, The Cost of a London, 191, 192
Folkard, Mr. C. W., on the Use of Sulphide of Calcium for Gas Purification, 1046
Folkestone Water Company, A Water Rating Dispute with the, 480, 496
Footpath, The Lighting of a Public, at Farsley, 112
Foreign Gas Works, Mr. J. Cocks on the Administration of, 1234
Foulis's, Mr. W., Regenerative Furnace for Heating Iron and Steel Plates, 117
France, Statistics of Gas Supply in, 906, 954
Frankland, Dr., on the Metropolis Water Supply in 1884, 619, 683
Frankland, Dr. P., on the Selection of Water for Domestic Purposes, 335, 358
Freights for Gas Coal on Spanish Railways, 34
Friction, The Determination of, with Gases Flowing through Pipes, 909
Friern Barnet, Pollution of a Brook at, 112
Fuel Gas Extraordinary, 147
Fulwood Water Supply, 112, 170, 572, 830, 861, 925, 1014, 1057
Furnace, A Regenerative, for Heating Iron and Steel Plates, 17
Gadd, Mr. W.—
  Exhaustion of the Coal Supply, 575, 623
  Heating of Air, 152, 1182, 1210
  Regenerator Furnaces, 17
Gainsborough Water Supply, 122
Galton, Captain D., on the Disposal of Metropolitan Sewage, 288
Galvanic Action upon Iron in Sand, 58
Gandon's, Mr. C., Inaugural Address at the Society of Engineers, 197, 249
Gardens, The Use of Sulphate of Ammonia in, 78
Gas and Water Bills, 1885, 65, 112, 160
Gas Burners, Safety, 622, 717
Gas Cooking Competition, A., 1199
Gas Distribution at High Pressure, 103
Gas Engines—
  Clerk, Mr. D., on, 450
  Conversion of Heat into Useful Work by, 1045
  Cycle of, 909
  Lane, Mr. D., on, 1229
Gas Engine, The Tangye, 1090
Gas Furnaces and Heating by Radiation, 60, 767
Gas Governor, Caink's Automatic Pressure Changing, 961
Gas, Illuminating Constituents of Coal, 148, 193
Gas Institute, The—
  Lever's, Mr. E., Offer of a Premium, 666, 722, 762, 777
  Manchester Meeting, 190, 290, 431, 527, 828, 856, 950, 1085, 1113, 1116, 1122, 1124, 1137, 1197
  Newbigging's, Mr. T., Inaugural Address, 1069, 1139
  Papers, Suggestions of Subjects for, 528
  Papers Read at the Manchester Meeting—
    Administration of Foreign Gas Works, by J. Cocks, 1234
    Distributing Light and Heat, by F. Siemens, 1165
    Effects of Heated Air upon Combustion, by W. Gadd, 1182
    Elementary Principles of the Gas Engine, by Denny Lane, 1229
    Gaseous Fuel, by H. Townsend, 1239
    Lighting and Ventilating Ordinary Apartments by Gas, by W. Sugg, 1236
    Manufacture of Sulphuric Acid in Connection with Gas Works, by J. Hepworth, 1178
    Rating of Gas Works, by W. Carr, 1170
  Report of Council, 1075
  Report of Proceedings at Manchester—A Correction, 1142
  Rules, Amendment of the, 853, 865, 962, 1004, 1046, 1118
  Visits to Manchester and Salford Gas Works, 1122, 1147
Gas Kiln, A Continuous Regenerative, 1094
Gas Lamps, High Power, 493
Gas Lighting and Heating Company of Brussels, 68
Gas Mains in Rotherhithe, 449
Gas Mains, The Laying and Repairing of, 771
Gas Meter Testing in Manchester, 966
Gas Pipes—
  Claim for Damage caused in the Removal of, 113
  New Material for, 718
  Rats and, 1147
  The Right to Connect, to Services, 1138
Gas Plant Machinery, Improved, 920, 962
Gas Products, Sales of, 33, 77, 124, 169, 217, 263, 311, 361, 408, 454, 503, 549, 597, 644, 688, 739, 789, 832, 881, 927, 970, 1014, 1056, 1100, 1152, 1217
Gas Rental, The Collection of, at Rotherham, 54
Gas Stocks in 1884, *Blackwood's Magazine* on, 335
Gas Stoves and Pure Air, Mr. N. H. Humphrys on, 245
Gas Stoves, The Letting of, on Hire, 590, 643, 709, 819
Gas Tube Trade, Strike in the, 202
Gas Undertakings in the United Kingdom, The Board of Trade Return as to, 53, 57
Gaseous Fuel, 450
Gaseous Mixtures, The Explosion of, 434
Gasholders—
  Accidents to, 534, 718
  French Central Column Counterbalanced, 668, 722
  Repair of, 771
Gaslight and Coke Company—
  Appointment of Mr. J. O. Phillips as General Manager, 1199
  Cheap Gas for Trade Purposes, 237
  Fulham Gas Supply, 263
  Gasholders at the Horseferry Road, 491
  Half Yearly Meeting, 286, 300
  Half Yearly Report and Accounts, 189, 208, 209
  Officers' Winter Dinner, 253
  Purifiers and Purifier House at Nine Elms, 1041
  Reduction in Price for Public Lighting, 102, 147
  Steam Roller Case, 526, 539, 810, 823, 881, 1087, 1198
  Weedon's, Mr., Action against the, 824
Gaslight Ventilator, A Shadowless, 106
Gasoline as a Fire Alarm, 574
Georgetown (British Guiana) Gas Company, 860, 1009
German Continental Gas Company, 500
Germany, Gas and Water Works *Employés* in, 310
Glasgow—
  Conference of West of Scotland Gas Managers in, 490
  Corporation and the Letting of Gas Stoves, 590
  Philosophical Society—Mr. G. S. Buchanan on a Shadowless Gaslight Ventilator, 106
  Public Lighting, 1152
  Quality of Gas, 902
  Water Supply, 31, 790
Globe, The—
  On the London Water Companies, 903
  On Taxing Light, 961
Glossop, Charges for Water at, 688
Gloucester Water Supply, 121, 214
Gorham's, Dr., Optical Photometer, 58
Goschen's, Mr., Address at the Eighty Club, 479
Gosport, A Water Supply Question at, 832
Government of London Bill, The, 287
Grand Junction Water Company—
  Half Yearly Meeting, 1140, 1149
  Half Yearly Report and Accounts, 1087, 1097
  Remarks on Mr. Firth's Return, 829
Grantham, Gas Works Extensions at, 311
Gratuitous Gas Supplies at Heywood, 311
Greenough, Mr. M. S., on Competition in Gas Supply, 734
Greville, Mr. H. L., on Sulphur Compounds of Calcium, 1144
Grimsby Gas Company's Provisional Order, The, 118, 208
Guéguen, M., on the Chemical Theory of the Production of Illuminating Gas (*continued from preceding Volume*), 59, 107, 157, 250, 339, 393
Guildford Gas Works, Extensions at the, 1015
Guildford Water Supply, 32
Halifax Gas and Water Supply, 644, 924
Hall, Mr. J., on Repairing Gasholders and Laying Mains, 771
"Handbook," New Edition of Mr. Newbigging's, 242
Handbooks, The Specialists' Series of, 102
Handsworth Water Supply, 1011
Handsworth Woodhouse, The Lighting of, 34
Harcourt, Mr. A. V.—
  Gas and other Illuminants, 874
  Standards of Light, 62, 158
Harrison's, Mr. J. T., Scheme for Improving the Water Supply of the Metropolis, 13, 55, 73
Harrogate Gas Company, Issue of Stock in the, 1152
Harrogate Gas Company, The, and the Corporation, 455, 500
Harrow District Gas Company, 303, 447
Harrow, Gas Exhibition at, 499
Harrow Water Works, The Proposed Transfer of the, to the Colne Valley Water Company, 549, 645, 1056, 1218
Hartley, Mr. F. W.—
  Calorific Value of Coal Gas, 1090
  Standards of Light, 18, 202
Haslingden Gas Supply, 21, 303
Hastings's, Mr. C., Gas and Water Companies' Directory for 1885, 999
Hawksley, Mr. T., and the Vyrnwy Water Scheme, 502, 687, 827, 878
Hawick, Gas Exhibition at, 683
Haywood, Mr. W., on the Public Lighting of the City of London in 1884, 710, 733
Head, Mr. J.—
  Heating by Radiation, 60
  Siemens's Gas Producer, 861
Heat and Light, The Production of, 1076
Heat in its Relation to Combustion, 817
Heat, The Absorption of Radiant, by Aqueous Vapour, 860
Heating and Power, The Distribution of Steam for, in America, 482
Heating by Electricity, 149
Heating by Radiation, 60, 767
Heckmondwike, Charges for Water at, 217
Hefner-Alteneck Unit of Light, The, 61
Heisch and Hartley, Messrs., on Standards of Light, 18, 109, 202
Heisch, Mr. C., on Standards of Light, 865
Hempel's Methods of Gas Analysis, 815, 817
Hepworth, Mr. J., on the Manufacture of Sulphuric Acid, 1178
Heywood Gas Supply, 311, 505, 683, 966, 1011, 1056, 1150
Heywood Water Supply, 1056
Higgs, Dr. P., and Forbes, Professor C., on Electrical Machinery, 102
Highbridge Water Supply, 549, 881
Hill *v.* Cardiff Corporation, 1145
Hints, Practical, for Gas Consumers, 574
Hobart (Tasmania) Gas Works, Extensions at the, 1213
Holgate, Mr. T., on Some Aspects of Destructive Distillation, 675, 721
Holywell Water Supply, 72, 263, 546, 689, 1217
Honiton Water Supply, 1212
Horsforth Water Bill, The, 263, 312, 789
Horwich Water Supply, 833, 1215
Huddersfield Corporation Gas and Water Supply, 170
Hull Water Supply, 644, 830, 879, 1052, 1054, 1153, 1217
Humphreys, Mr. C. J. R., on the Effect of Carbonic Acid on the Illuminating Power of Coal Gas, 1143
Humphrys, Mr. F. C., on Discounts on Gas Accounts, 109
Humphrys, Mr. N. H.—
  Calorific Value of Coal Gas, 1046
  Carbonic Acid, The Removal of, from Coal Gas, 1001
  Gas Stoves and Pure Air, 245
Hunter, Mr. S., on the Composition and Products of Coal, 114, 163
Hutchinson's, Mr., Gas Generator, 147
Hyde Water Supply, 124
Hydrants, The Supply of Water for, 345, 1244
Hydraulic Main, Isbell's, 1090
Hydraulic Power, Gas and, for Lifts and Hoists, 859
Hydrocarbons, The Illuminating Power of, 484
Hydrogen, The Occlusion of, by Zinc Dust, 15, 485
Hydro-Mechanics, Institution of Civil Engineers' Lectures on, 214, 440, 737
Hygiene, Nature's, 242
Ilkeston Gas Supply, 405, 455, 549, 776, 790, 1056
Illuminating Constituents of Coal Gas, The, 148, 193
Imperial Continental Gas Association, 871, 1086
Incandescent Electric Lamps, The Working of, 622, 952
Incandescent Electric Lighting, The Cost of, 1203
Incandescent Gas Lights, New, 735, 816, 1209
Incrustation in Boilers, The Prevention of, 15
Incrustations in Water Mains, The Removal of, 1090
Industrial Use of Gas, The, 237, 251, 341, 394
Institution of Civil Engineers—
  Bramwell's, Sir F., Addresses at the, 97, 99, 104, 827
  Hydro-Mechanics, Lectures on, 214, 440, 737
  Report of Council, 1126
  Thwaite, Mr. B. H., on the Preservation of Iron, 200, 339
Instruction, Popular, in the Use of Gas, 239, 297, 452
Intense Lights, The Photometry of, 151
Inventions Exhibition, The International, 191, 573, 764, 854, 857, 874, 901, 905, 953, 996, 998, 1043, 1049, 1141
Inventor, The Troubles of an, 545, 1056
Invisible Combustion, 342, 395, 494
Ipswich, The Public Lighting of, 353, 785
Iron, Action of Water on, 387
Iron and Steel Institute—
  Armstrong, Professor, on Coal Distillation and Gas Manufacture, 949, 960
  Head, Mr. J., on Siemens's Gas Producer, 861
  Simon, Mr. H., on the Development of the Simon-Carvès Process, 1003
  Smith, Mr. W., on the Residuals obtained in the Coking of Coal by the Simon-Carvès Process, 1002
Iron, Durability of Wrought, 816
Iron, Galvanic Action upon, in Sand, 58
Iron Industry, A New Application of Gas in the, 715
Iron, Preservation of, by One of Its Own Oxides, 200, 339

Isbell's Hydraulic Main, 1090
Jameson Coking Process, The, 1209
Joint Stock Companies New, 264, 452, 789, 825
Joints, Steel, Hydraulic, and Hand Riveted, 1000
Jones, Mr. C. E., on Progress in Developing the Illuminating Power of Coal Gas, 391
Juries at the Inventions Exhibition, 1049
Jurors, British, at the Antwerp Exhibition, 1142
Kenilworth, New Water Works for, 18
Kennedy, Professor, on the Proportions and Strength of Joints, 1000
Kent Water Company's Bill, 191, 307, 1087, 1139, 1186, 1214
Kettering Water Supply, 264
Keynsham, Differential Charges for Gas at, 21
Key's Pressure Valve, Tests of, 167
Kidderminster Water Supply, 740
Kingstown, A Water Pressure Question at, 549
Knighton, The Public Lighting of, 505
Laboratory Gas Generating Apparatus, 244
Lalande and Spence's Galvanic Battery, 100
Lambert, Professor, on Artificial Illumination, 357
Lambeth Water Company—
  Accident to Mains, 788
  Extension Works, 167
  Firth's, Mr., Return, 763
  Half Yearly Meeting, 995, 1011
  Half Yearly Report, 951
Lamp, A New, for Heavy Oil, 718
Lamp Posts, The Design and Utilization of, 994
Lancashire, A Water Scheme for South-East, 306
Lancaster Corporation Gas and Water Supply, 597, 878, 1014
Lane, Mr. D., on the Elementary Principles of the Gas Engine, 1229
Lea, The Condition of the River, 868
Lectures, A Brilliant Light for, 244
Leeds Corporation Gas Supply—
  Abstract of Accounts, 166
  Managership of the Meadow Lane Works, 828
  Meter Testing, 71
  Progress of the Undertaking in 1884, 405
  Quality of Gas, 406
  Sunday Labour at the Gas Works, 455, 549
Leeds Corporation Water Supply—
  Abstract of Accounts,
  Dispute with Bradford as to Boundary, 121, 159, 217, 261, 644, 736, 879, 925, 1014, 1052
Leeds's, Dr. A. R., System of Water Purification, Experiments with, 122
Leek Gas Supply, 71, 450
Legislation, Innovations in Gas, 950
Legislation, Proposed Gas and Water, for 1885, 240, 289, 336, 337
Leicester Corporation Gas and Water Supply, 526, 543, 1011
Leicester Corporation Water Works Assessment, 65, 169, 970, 1011
Leigh Gas and Water Supply, 1011
Lever, Mr. E., and the Economical Use of Coal, 666, 722, 762, 777
Lewisham, The Quality of the Gas at, 124, 408
Leyton, The Public Lighting of, 456, 1056
Libel on a Gas Works Foreman, 299, 360
Light and Heat, Mr. F. Siemens on the Distribution of, 1165
Light, Taxing, 961
Light The Visual Perception of the Different Intensities of, 435
Light Standards (*see* Standards of Light)
Lighthouse Experiments at the South Foreland, The, 250, 310, 501, 618, 783
Lighthouse Illuminants, 72, 101, 165, 441, 454, 538, 583, 868, 914
Lighting and Ventilating Apartments, Mr. W. Sugg on, 1236
Lighting or Paving, 781
Lightning Flashes, The True Form of, 58
Lime Process of Gas Purification, Experiments on the, by Mr. V. H. Veley, M.A., 957
Limes and Cements, The Setting Qualities of, 59
Lincoln Gas Purchase Bill, The, 1152
Lincoln Water Supply, 928
Liverpool Corporation Water Supply—
  Bootle Supply, 167
  Hawksley, Mr., and the, 502, 687, 827, 878, 1153
  Statistics for 1884, 1151
  Vyrnwy Works, 263, 451, 594, 641, 871, 1053, 1203
  Water Committee and their Coal Contracts, 882
Liverpool Gas Fittings Company, 903
Liverpool United Gas Company, 349
Livesey, Mr. G., Dinner to, 999, 1007
Llandudno, Gas and Water Affairs at, 549
Lloyd, Mr. F. J., on the Value of Sulphate of Ammonia as a Manure, 909
Local Government Board Inquiries—
  Batley, 642, 968
  Blackrod, 455
  Brighouse, 966
  Darlington, 645
  Elland, 596
  Gainsborough, 122
  Haverhill, 262
  Holywell, 1217
  Ilkeston, 790
  Kidderminster, 740
  Kingstown, 970
  Market Harborough, 644
  Milton-next-Sittingbourne, 170
  Oldbury, 682
  Queenstown, 169
  St. George's-in-the-East, 620, 639
  Sutton-in-Ashfield, 124
  Walton-le-Dale, 689
  Wellingborough, 1215
Local Government Board and the Lower Thames Valley Main Sewerage Inquiry, 572
London Government Reform, Mr. Firth on, 951
London, The Public Lighting of the City of, in 1884, 710, 733
Long Eaton Gas Works, Proposed Purchase of the, by the Local Board, 970, 1152
Loughborough Water Supply, 168, 1056, 1153
Lower Thames Valley Main Sewerage Scheme, The, 34, 55, 77, 100, 572, 677, 1088
Lubricants, The True Value of, 673
Luminous Impressions, The Duration of, 485
Luminous Sensations, The Intensity of, 1203
Luton Gas Works, New Washer Scrubber for the, 405
Lyndhurst Gas and Water Supply, 148
Lyon, Mr. J. H., on the Supply of Gas to Public Lamps, 624
M'Allum, Mr. C. D., on the Value of Sulphate of Ammonia, 770, 811
Mablethorpe, The Lighting of, with Gas, 31
Macadam, Dr. S., on the Sanitary Aspects of Heating and Cooking by Gas, 731
Macadam, Mr. W. I.—
  Employment of Gas for Cooking, 910, 958
  Manufacture of Gas from Paraffin Oil, 1204
Machines and Processes, The Evolution of, 477
Madeley Gas Works, Proposed Purchase of the, by the Local Board, 118
Maidstone Water Bill, The, 170, 505
Main, Lowering a Water, while in Use, 545
Mains, Local Authorities and Gas and Water, 680
Mains, The Repair of, 771
Mallard and Le Châtelier, MM., on the Explosion of Gaseous Mixtures, 434
Malta and Mediterranean Gas Company, Limited, 1147
Malton, Successful Results of a Gas Exhibition at, 351
Manchester Association of Employers, Foremen, and Draughtsmen—
  Annual Dinner, 304
  Fletcher, Mr. T., on the Use of Gas in the Workshop, 154
Manchester Corporation Gas Supply—
  Gas Profits and City Improvements, 854, 876, 1056
  Management of the Bradford Road Works, 484
Manchester Corporation Water Supply—
  Annual Report of the Water Committee, 260
  Reservoir Capacity, 970
  Thirlmere Scheme, 55, 74, 789, 881, 1057, 1152
Manchester District Institution of Gas Engineers—
  Annual Meeting in Manchester, 383, 388
  Gas Works Capacity, Discussion on, 437
  Paterson's, Mr. J., Inaugural Address, 389
  Quarterly Meeting at Bowdon, 959
  Reference Library, 388
Manchester, Visit of French Engineers to, 1100
Mann's High Pressure Cistern Valve, 594
Mansfield Gas Supply, 861
Margate, The Public Lighting of, 202
Market Harborough Water Supply, 644, 920
Market Weighton Water Supply, 787
Marple Gas Supply, 263, 449, 688
Masonic, 549, 789, 1000
Mauritius Gas Company, 785, 827
Metallurgical Process, A Coal Gas, 290
Meter, A Double Index, 58
Meter Inspector, An Enterprising, 452
Meter Rents, Reduction of, at Kingston, 687
Meter, Supply of Water by, 969
Meters, Deposits on, 505
Meters, Electrical, 62
Methane, The Luminosity of, 435
Metropolis Gas Supply—
  Chief Gas Examiner's Reports, 68, 680, 1147
  Commercial Gas Company, Proceedings against the, for Deficiency in Illuminating Power, 334, 345
  Haywood's, Mr. W., Report on the Public Lighting of the City of London in 1884, 710, 733
  Metropolitan Board of Works Reports, 78, 264, 456, 645, 833, 1015, 1218
  St. George's, Hanover Square, Public Lighting, 170
  Testing of Gas, 238, 253, 383, 402, 442
Metropolis Management Acts Amendment Bill, The, 904, 1039
Metropolis Water Supply—
  Analyses of the, 147, 571, 968, 1200
  Constant Supply at the East End, 505, 549, 639
  Court of Common Council, 167, 406
  Dalton, Mr. W. H., on the Chalk Formation as a Source of Supply, 192
  Frankland's, Dr., Annual Report on the, 619, 683
  Harrison's, Mr. J. T., Scheme for Improving the, 13, 55, 73
  Radcliffe's, Dr., Scheme for Improving the, 147, 166
  Registrar-General's Returns, 121, 308, 503, 736, 924, 1151
  Scarcity of Water in South London, 788
  Underground Supplies, Mr. M. Williams on, 308
Metropolitan Board of Works—
  Annual Report, 855, 875, 924
  Dibdin's, Mr. W. J., Report on Standards of Light, 570, 576, 626, 673, 718, 733, 762
  Fires, Water Supply at, 159
  Further Powers Bill, 77, 121
  Gas Testing, 238, 253, 383, 402, 442, 478, 499, 589, 1100
Metropolitan Board of Works (*continued*)—
  Main Drainage Outfalls, 856
  Meter Testing, 499, 589
  Metropolis Management Bill, 1039
  Reports on the Metropolis Gas Supply, 78, 264, 456, 645, 833, 1015, 1218
  Water Companies (Regulation of Powers) Bill, 776, 903, 923
  Water Supply in the Metropolis, 451, 732, 776, 855
Metropolitan Gas Companies, The Working of the, in 1884, 665, 671
Microbe Filter, A New, 387
Middlesbrough Gas Supply, 1094
Middlesbrough Water Works Assessment, 1015
Middleton and Tonge Gas Supply, 1095
Midgley, Mr. B., on the Working of the Colne Vale Gas Undertaking, 670
Midland Association of Gas Managers—
  Annual Meeting at Birmingham, 246
  Jones, Mr. C. E., on Progress in Developing the Illuminating Power of Coal Gas, 391
  Tindall's, Mr. J., Inaugural Address, 246
Miller, Professor A. K., on the Products of the Manufacture of Gas from Petroleum, 1209
Milton-next-Sittingbourne Water Supply, 170
Mineral Oils, Separating Heavy from Light, 59
Mitcham, Proposed Private Gas Works at, 78, 505, 642, 1004
Money Market, Gas and Water Stocks in the, 13, 56, 102, 151, 195, 243, 290, 338, 386, 432, 480, 528, 572, 622, 668, 713, 764, 812, 856, 904, 952, 996, 1040, 1088, 1140, 1200
Monte Video Gas Company, 912, 965
Monte Video Water Company, 597
Moody, Mr. W. H., on Retort House Difficulties, 580
Mortar, A Recipe for Making Good, 103
Motors, Professor Unwin on Water, 737
Much Wenlock Gas Works, 1100, 1152
Municipal and Sanitary Engineers and Surveyors, Meetings of the Association of, 785, 969, 1198, 1204, 1205
Municipal Corporations (Borough Funds) Bills, 441, 778
Murdoch, The Proposed Memorial to, 995, 1040
Naples Water Works, Opening of the, 880
Narcotic, The Employment of Coal Gas as a, 385
Native Guano Company's Process, Dr. Tidy and Professor Dewar on the, 1140
Native Guano Company, The, and the Sewage of the Metropolis, 239
Natural Gas, Calorific Value of, as Compared with Coal, 926
Natural Gas in America, 103, 199, 245, 362, 491, 501, 925
Nature's Hygiene, 242
Neath, The Quality of the Gas at, 120
Neath Water Company's Bill, 311, 505, 595, 924
Nelson Water Supply, 76
Newark, A Water Analysis Squabble at, 32
Newbigging's "Handbook," New Edition of, 242
Newbigging's, Mr., Inaugural Address to The Gas Institute, 1069, 1139
Newbury Gas Supply, 923
Newcastle-upon-Tyne—
  Gas Company's Affairs, 302, 349
  Quality of the Gas at, 115, 147, 162, 255
  Water Supply of, 406
Newcastle-under-Lyme Gas Supply, 1095
Newport (Mon.) Gas Works Benefit Society, 309
Newton, Mr. J., on Heating, Lighting, and Ventilation, 629
Newtownards Gas Company, Winding up of the, 207, 263
New England Association of Gas Managers, 490
New River Company, The, and the Alteration of Water Fittings, 113, 114
New York, A New Water Supply for, 1100
New York, Gas Affairs in, 532, 618, 638, 666, 673, 711, 923, 966, 994, 1002, 1125, 1152, 1217
New Zealand, Gas Affairs in, 501
Nictheroy (Brazil) Gas Company, 873, 921
Nitrate of Soda, The Market for, in 1884, 25, 361
Nitrate of Soda, The Value of, 619
Nitrogen of Minerals, The Production of Ammonia from the, 294
Normanton Gas Company, 454
Northampton Water Supply, 76, 148, 217, 456, 549
Northfleet, Lighting of, with Oil, 407
North British Association of Gas Managers—
  Murdoch Memorial, 995, 1007
  Prize Essays for the Meeting of the, 902
  Statistics of Gas Supply in Scotland, 762
  Subjects for Papers, 587
North, Mr. F. J., Presentation to, 732, 927
North of England Gas Managers' Association—
  Half Yearly Meeting at Newcastle, 769
  Hall, Mr. J., on Repairing Gasholders and Laying Mains and Services, 771
  M'Allum, Mr. C. D., on the Value of Sulphate of Ammonia, 770
Norwich, Waste of Water in, 77
Nottingham Corporation Finances, 1038, 1049
Nottingham, The Price of Gas at, 54, 68
Nottingham Water Supply—Opening of a New Reservoir, 1214
Odessa Water Company, 639, 685
Official Changes, 77, 104, 114, 124, 240, 347, 361, 401, 431, 432, 447, 450, 531, 541, 571, 575, 687, 789, 828, 876, 877, 1040, 1100, 1151
Oil Gas, Illumination by Compressed, 259
Oil Gas *versus* Coal Gas in St. Louis, 1038
Oils, Dangerous, 621
Oldbury Gas Supply, 544, 682

Oldham Gas and Water Supply, 1006, 1012
Oldham, Smoke Prevention (?) at, 98
Old Gas Men, The Pensioning of, 346, 395
Ottoman Gas Company, 596, 638
Overcharges for Water, The Refunding of, 496
Over Production and Its Remedy, 1087
Oxford Corporation Water Bill, The, 33, 362
Oxford Water Supply and Drainage 597, 1055
Oxygen, The Liquefaction of, 1000
Oystermouth Gas and Water Company, 452
Paper, Gas from, 767
Paraffin Oil, The Manufacture of Gas from, 1204
Pará Gas Company, 165, 211
Paris, Gas Supply in, 430, 666, 811, 824, 906, 954
Parkes Museum, Lectures at the, 358, 455, 587
Parliament, Private Bills in (*see* Bills)
Patents Act, The Working of the, in 1884, 101
Paterson, Mr., on the Future Water Supply of Bradford, 503
Paving or Lighting, 781
Pensioning of Old Gas Men, The, 346, 395
Petroleum, The Products of the Manufacture of Gas from, 1209
Phillips, Appointment of Mr. J. O., as General Manager of The Gaslight and Coke Company, 1199
Photometer for Diffused Light, 766
Photometer, Dr. Gorham's Optical, 58
Photometer, Mr. W. J. Dibdin's Radial, 713, 773, 863
Photometer, The Metropolitan Board of Works and their Portable, 238, 253, 383, 402
Photometric Standard by Edison, A, 956
Pinewood, Gas from, 290
Pipes, Iron Bound Wooden Water, 151
Pipette, A Measuring, for Dangerous Fluids, 387
Plant in Gas Works, The Position of, 16
Plaster, A Method of Hardening, 908
Plates, Regenerative Furnace for Heating Iron and Steel, 17
Plymouth and Stonehouse Gas Company, 33, 1217
Plymouth and Stonehouse Water Supply, 1146
Pole, Dr., on the London Water Supply, 431, 440
Pontypool Gas and Water Company, Williams *v.* the, 445
Portland Cement, Mr. H. Faija on, 1044
Port St. Mary (Isle of Man), Proposed Water Works for, 1056
Preece, Mr. W. H., on Electric Lighting Matters, 337, 764, 815, 858, 1042
Pressure, The Automatic Regulation and Changing of, 484
Preston Gas and Water Supply, 33, 311
Price of Gas in the United States, The, 501, 526
Primary Batteries, 58, 100, 956
Private Bill Legislation, History of, 1100, 1202
Private Bill Legislation, The Reform of, 333, 381, 398, 821
Private Gas Works, Proposals to Establish, 78, 486, 505, 642, 1004
Prizes for the Encouragement of Invention, Proposed, in Paris, 99
Profits, The Disposal of Gas—
  At Burton-on-Trent, 881
  At Dukinfield, 597
  At Manchester, 854, 876, 1056
  At Rotherham, 881
  At Salford, 681
Provinces, Charges for Gas and Water in the, 1052
Provisional Orders, Applications for, 25, 68, 116, 118, 148, 208, 259, 494
Provisional Orders, Gas and Water, for 1885, 337, 784, 878, 923, 950
Public Houses, The Rating of, for Water Supply, 432, 445, 446, 498, 995
Public Lamps, Mr. J. H. Lyon on the Supply of Gas to, 624
Public Lighting Dispute at Tamworth, 967
Public Lighting, Improved, 261, 263, 543
Purchase of Gas and Water Works by Local Authorities, Proceedings in Regard to the—
  Bromsgrove, 455
  Burnham, 120, 454
  Chichester, 261
  Clevedon, 262
  Coventry, 33, 288, 454, 1051
  Croydon, 302, 592
  Flint, 311
  Harrow, 549, 645, 1056, 1218
  Haverhill, 262
  Hull, 309
  Long Eaton, 970, 1152
  Madeley, 118
  Maidstone, 782
  Marple, 263, 449, 789
  Marsden, 505
  Much Wenlock, 1100, 1152
  Stalybridge, 24, 208, 257, 351, 455, 486, 545, 589, 644, 688, 710, 784, 828, 903
  Swindon, 311, 486
Purification of Gas, The Lime Process for the, 957
Purification of Water, Experiments of Mr. Ludlow, of Philadelphia, on the, 122
Purifiers and Purifier House, The New, at Nine Elms, 1041
Purifier, Spontaneous Combustion in a, 1047
Pyrites Acid, The Use of, in Making Sulphate of Ammonia, 342
Pyronaphtha as an Illuminant, 14
Quality *versus* Cheapness of Gas, 1086
Queenstown Water Supply, 169
Radial Photometer, Mr. W. J. Dibdin's, 713, 773, 863
Radiation, Gas Furnaces and Heating by, 60, 767, 1090
Radiometer, The, as a Photometer, 485
Railway Carriage Lighting, 287, 484, 531, 922
Rainham (Essex) Water Supply, 547
Ramsey (Isle of Man), New Water Reservoir at, 1217
Ramsgate Gas and Water Supply, 1010
Rarefied Air Power, 956
Rating of Gas Works, Mr. W. Carr on the, 1170
Rating of Local Authorities' Water Works, 384, 398
Rating Questions, Gas and Water (*see* Assessment Appeals)
Reading Gas Company, 409
Redhill Gas Works, The Assessment of the, 350, 382, 394
Reductions in Price, 68, 102, 169, 258, 362, 394, 397, 455, 505, 545, 828, 875, 876, 970, 1048, 1217
Regenerative Gas Lamps, The Extended Use of, 435, 484
Regenerator Furnaces, 17, 296, 341, 535
Residuals, Breach of a Contract for, 207
Residuals, The Bradford Corporation Contract for, 342
Residuals, The Reduced Value of, 644, 645, 677, 881, 962, 1004, 1046, 1094
Retford Water Supply, 1217
Retort, A Small, for Testing Coals, 196
Retort Carbon, A Use for, 442
Retort House, Mr. W. H. Moody on Difficulties in the, 580
Retorts, The Shape and Setting of, 1126
Retorts, The Working of Gas, with Short Charges, 533
Retrospect of Gas and Water Affairs in 1884, 9, 12
Returns as to Gas Undertakings, 344, 571, 582
Returns, Parliamentary, as to the London Water Companies, 632, 667, 712, 737, 763, 786, 829, 1199
Rhondda Valley, Gas Agitation in the, 71, 408
Richmond, The Well Boring Operations at, 12, 31, 168, 239, 668, 878, 1098
Richmond (Yorks) Gas Works, Extension of the, 1056
Rio de Janeiro, The Lighting of, 29, 118, 208, 681, 782
Rivers, The Pollution of, 455, 528, 831
Ripon Water Supply and Drainage, 1095
Roads, Claims for Damages to, 34
Roads, The Opening of, 359, 504, 589, 905, 1153
Road Watering, The Supply of Water for, 124, 204, 262, 452, 833, 1093
Robinson, Mr. H., on the Sewage Question and River Pollution, 312, 455
Rochdale Gas and Water Supply—
  Charge for Water, 502
  Defective Reservoir, 925, 1098
  Extension of Works, 303, 645
  Price of Gas in Out-Townships, 409, 505
  Progress in 1884, 29, 877, 1052
Roof, A Combination Tar and Slate, 574
Rotherham Gas Supply, 28, 54, 71, 258, 832, 881
Rotherham Water Supply, 689
Rotherhithe, Serious Gas Explosion in, 761, 781, 810, 826, 854, 870
Runcorn Gas Bill, The, 263
Safety Gas Burners, 622, 717
Salisbury, The Marquis of, on the Unearned Increment, 952
Sales of Shares, 69, 169, 217, 409, 455, 495, 549, 586, 644, 688, 716, 781, 920, 970, 1000, 1056, 1100, 1152, 1217
Salford Corporation Gas Supply, 258, 681
Sanitary Conference, The, at Rome, 996, 1039
Sanitary Gas Making, Mr. J. A. Wanklyn on, 1205
San Paulo Gas Company, 636, 733
Scarborough, The Price of Gas at, 642
Schrabetz's Anti-Fluctuator, 195
Scotland—
  Assessment of Water Works in, 596, 686
  Notes from, 32, 76, 123, 168, 216, 262, 310, 360, 407, 453, 504, 548, 596, 643, 687, 739, 788, 831, 880, 926, 1013, 1055, 1098, 1151, 1216
  Statistics of Gas Supply in, for 1884, 762
Seal in the Hydraulic Main, Mr. E. Vanderpool on the Removal of the, 107
Sellar's, Mr., Bill for the Reform of Private Legislation, 333, 381, 398, 821
Sellon's, Mr. J., Scheme for Heating by Electricity, 149
Sewage as Fuel, 264
Sewage, Gas from, 120
Sewage Question, The, 77, 102, 239, 288, 312
Sewage, The "A. B. C." Process for the Treatment of, 239, 1140
Sewage, The Lime Treatment of, at Buxton, 712, 812, 951
Sewerage of Sheffield, The Sheffield Water Company and the, 503
Share List of Gas and Water Companies, 34, 78, 125, 170, 217, 264, 312, 362, 407, 455, 506, 550, 597, 645, 689, 740, 790, 833, 882, 928, 970, 1015, 1057, 1100, 1153, 1218
Sheffield Gas Company, 500, 637
Sheffield, Improved Street Lighting at, 543
Sheffield Water Company, 728, 964, 503, 593, 686, 786, 951
Shipley Water Supply, 77, 881
Shippey's, Mr. A., Method of Collecting Virgin Coal Gas, 195
Shocks in Water Pipes, 628
Siemens's Gas Producer, A Modified Form of, 861
Siemens's, Mr. F., New Gas Lamp and Stove, 531, 1165
Siemens, The Career and Inventions of the Late Sir W., 927
Simon-Carvès Process, The, 1002
Singapore Gas Company, 790, 826
Skipton Water Supply, 963
Slag Cement, 157
Slater, Mr. A. B., on the Relative Positions of Gas Works Plant, 16
Sliding Scale, The, for Corporations, 570
Sliding Scale, The Operation of the, 146, 160, 191, 205
Slough, Gas Affairs at, 117, 169, 362, 505, 593, 781, 1212
Smethwick Gas Supply, 740
Smith, Mr. W., on Coking Coal, 108, 1002
Smoke Abatement Institution—Annual Report of the Council, 192, 212
Smoke Prevention, 98, 212, 538, 569, 587, 629, 678, 723
Société Technique de l'Industrie du Gaz en France, The Meeting of the, 190, 290, 1089, 1208
Society of Arts—
  Anderson, Mr. W., on the Gas Engine, 1045
  Beilby, Mr., on the Production of Ammonia from the Nitrogen of Minerals, 294
  Inventions Exhibition, 78
Society of Chemical Industry—
  Bott, Dr., and Allen, Mr. A. H., on Technical Gas Analysis, 815, 817
  Dibdin, Mr. W. J., on the Radial Photometer, 773, 863
  Giles and Sherer, Messrs., on Aqueous Solutions of Sulphurous Acid, 1142
  Jameson, Mr. J., on Coking Coal, 1209
  Smith, Mr. W., on Early Efforts in Coking Coal 108
  Stark, Mr. F., on a New Form of Chlorimeter, 1142
  Tilden, Mr. W. A., on the Density of Coke, 61
Society of Engineers—
  Church's, Mr., Presidency, Memento of, 1203
  Faija, Mr. H., on Portland Cement, 1044
  Gandon's, Mr. C., Inaugural Address, 197, 248
  Rigg, Mr. A., on American Engineering Enterprise, 454
  Transactions of the, for 1884, 963
  Visit to Tilbury Docks, 1188
Society of Telegraph Engineers and Electricians, 205
Soda Works Residues, The Treatment of, 14
Solidification of Gases, The, 435
Soot and Smoke, Press Writers on, 190
Southampton Water Supply, 215, 549, 1005
Southern District Association of Gas Engineers and Managers—
  Botley, Mr. C. E., on Railway Carriage Lighting, 287, 291
  Visit to Swindon, 912
Southport Gas Supply, 923
Southwark and Vauxhall Water Company—
  Annual Value Disputes, 498
  Bill of the, 77, 191, 287, 456, 1139, 1187
  Meetings of the, 307, 1087, 1096
South Foreland Lighthouse Experiments, The, 250, 310, 501, 618, 783
South Hants Water Company, The, and the Southampton Corporation Water Bill, 549
South Metropolitan Gas Company—
  Amalgamation with Woolwich Companies, 33
  Changes in the Board, 33
  East Greenwich Works, 480
  Explosion in Rotherhithe, 761, 781, 810, 826, 864, 870
  Half Yearly Meeting, 334, 346
  Half Yearly Report and Accounts, 285, 302, 348
  Main Laying in Rotherhithe, 449
  Public Lighting in South London, 1057
South Shields Gas Company, 408, 454
South Wales, Gas Agitation in, 449, 544, 832, 873
South-West of England District Association of Gas Managers—
  Meeting at Sherborne, 387, 479, 487, 533
  Garnett, Mr. G., on Accidents to Gasholders, 534
  Lyon, Mr. J. H., on the Supply of Gas to Public Lamps, 624
  Moody, Mr. W. H., on Difficulties in the Retort House, 580
  White's, Mr. T. W. R., Inaugural Address, 533
Sowerby Bridge Gas Works, Proposed Extension of the, 1149
Spain, Freights for Gas Coals in, 34
Specialists' Series of Handbooks, The, 102
Spent Lime, Another Use for, 157
Sperm, The Substitution of Cheap, for Standard Candles, 629
Spice, Mr. R. P., on the Cooper Coal-Liming Process, 17
Spontaneous Combustion of Coal, 241
St. Albans Water Supply, 452
St. Helens Gas and Water Supply, 454, 640, 1215
St. Louis, Coal *versus* Oil Gas in, 1038
St. Louis, Wreck of a Gasholder at, 718
St. Petersburg New Water Works Company, 451
St. Thomas (Swansea) Water Supply, 1153
Stafford Gas Supply, 124, 828, 876, 922
Stafford, Mr. J. E., on the Gas Water, and Sewage Works of Burnley, 785, 829
Stalybridge Gas Bill, The Dukinfield Local Board and the, 455, 589, 688
Stalybridge Gas Works, The Proposed Purchase of the, by the Corporation, 24, 208, 257, 351, 455, 486, 545, 589, 644, 688, 710, 784, 828, 903
Stamford Water Supply, 262

Standards of Light—
Dibdin, Mr. W. J., on, 570, 576, 626, 673, 713, 718, 773, 863
Harcourt, Mr. A. V., on, 62, 158
Heisch and Hartley, Messrs., on, 18, 109, 202
Heisch, Mr. C., on, 865
Sugg, Mr. W., on, 394
Stansfield, Mr., of Drighlington, Presentation to, 148
State Antagonism to Private Enterprise, 479
Statistics of Metropolitan Water Companies, 632
Steam Boilers, Explosive Energy and Superheating of, 244, 484
Steam Distribution for Heating and Power in America, 482
Steam, Effect of, on the Combustion of Carbon and Oxygen, 672
Steam Roller, A Lament for the, 994
Steam Rollers, Gas Companies and the Use of, 303, 505, 539, 680, 810, 823, 881, 1087, 1149, 1198, 1212
Steam Supply Association, The Projects of the, 244
Steel Riveted Joints, The Proportions of, 1000
Steel, The Condition of Carbon in, 290
Stevenson, Mr. G. E., Presentation to, 244
Stockton and Middlesbrough Water Supply, 124, 264
Stockton Gas Supply, 1094
Stockton, The Letting of Gas Stoves at, 643
Stoke-upon-Trent Gas Supply, 1217
Stollwerk's Boiler Feed Purifiers, 195
Stone, The Public Lighting of, 217
Stony Stratford Water Supply, 217
Stopcocks, The Fixing of Exterior, 116, 362, 1006, 1146
Storeage of Coal, Loss of Weight by the, 1090
Storeage of Towns' Water, Mr. J. T. Wood on the, 34
Storeage of Water in Derbyshire, 1218
Storm Water, Corporations and the Removal of, 505, 629
Stove Blacking Iron Goods, A Cheap Method of, 1076
Stoves, The Letting of Gas, on Hire, 590, 643, 709, 819
Strasburg, The Lighting of, 688
Stratford-upon-Avon Gas and Water Supply, 262, 1051
Street Lighting, Mr. W. S. Crimp on, 1204
Strike in the Gas Tube Trade, 202
Subsidence of Soil as Affecting Gas and Water Works, 117, 169, 1152
Subways for Gas and Water Pipes, 740, 809
Sugg, Mr. W., on Lighting and Ventilating Apartments, 1236
Sugg *v.* Bray, The Judgment in, 633, 902, 914
Sulphate of Ammonia—
Deaths caused in the Manufacture of, 113
Market for, in 1884, 25
Value of, as a Manure, 619, 770, 811, 903, 909, 1047
Sulphur Compounds of Calcium, 1045, 1144, 1211
Sulphur of Coal, The Origin of the, 532
Sulphuretted Hydrogen, Mr. H. N. Draper's Method of Preparing, 14
Sulphuric Acid, Mr. J. Hepworth on the Manufacture of, 1178
Sulphurous Acid, Aqueous Solutions of, 1142
Sunday Labour in Gas Works, 455, 549, 682, 961, 1014, 1041
Sutton-in-Ashfield, The Water Supply and Sewerage of, 124
Sutton (Surrey) Gas Works, Nuisance from the Sulphate Works at the, 360, 409
Swansea, The Public Lighting of, 118
Swansea Water Supply, 1100
Swindon Gas Supply, 69
Swindon, Visit of the Southern District Association of Gas Managers to, 912
Tamworth, A Public Lighting Dispute at, 967
Tangye Gas Engine, The, 1090
Tar Distiller, Failure of a, 645, 677, 1014
Tar, The Production of, 962
Taunton Water Supply, 925
Taxation of Gas, Suggested, 810
Taxing Light, The *Globe* on, 961
Tenderer, Action by a Lowest, 452, 787
Testing Gas by Local Authorities, 207, 238, 253, 334, 345, 383, 442
Testing Gas Meters in Manchester, 966, 999
Thames, Mr. J. Taylor on the Supply of Water from the, 30
Thames, The Pollution of the, 122
Thames Valley Drainage, The, 34, 55, 77, 100, 572, 677, 1088
Thermometry, New Inventions in, 198
Thirlmere Water Scheme, The (*see* Manchester)
Thomas, Presentation to Mr. P., 861
Thresh's, Dr., Lime Treatment of Sewage, 712, 812, 951
Thwaite, Mr. B. H., on the Preservation of Iron by One of Its Own Oxides, 200
Tidy, Dr., and Professor Dewar on the "A. B. C." Process, 1140
Tilden, Mr. W. A., on the Density of Coke, 61
Tipton Gas Supply, 33, 903
Todmorden Water Works, 1153
Tooley, Mr. G., Presentation to, 1048
Torquay Gas Company, 593
Torquay Water Supply, 76, 832
Totnes Gas Company, 881
Tottenham and Edmonton Gas Company, 447
Tower Project, A Gigantic, 338, 670
Townsend, Mr. H., on Gaseous Fuel, 1239
Trade Purposes, The Supply of Water for, 299
Trade Purposes, The Use of Gas for, 237, 251, 263, 302, 341, 394
Trimethylamine and Pyrrol from Coal Gas, The Synthesis of, 15
Tyldesley Gas Works, Subsidence of the, 117, 169, 1152
Tyldesley, The Price of Gas at, 455, 550, 594
Tyne Valley, Scheme of Water Supply for the, 644
Uckfield Gas Company, 881
Ulverston Gas and Water Supply, 1052
Undercharges for Water, A Consumer's Liability for, 114
United States, The Price of Gas in the, 501, 526
Uren *v.* Bristol Water Company, 668
Urquhart, Mr. J., on Testing Gas Meters in Manchester, 966, 999
Uxbridge Gas Supply, 119, 403
Valon, Mr., and the Heating of Air in Regenerator Furnaces, 429, 436
Valuation Act, The London Water Companies and the Metropolis, 383, 431, 444, 496, 763
Vanderpool, Mr. E., on the Removal of the Seal in the Hydraulic Main, 107
Vapour Motors, 103
Veley, Mr. V. H.—
Lime Process of Gas Purification, 957
Sulphide of Calcium for Gas Purification, 1090
Sulphur Compounds of Calcium, 1211
Ventilating and Lighting Apartments, Mr. W. Sugg on, 1236
Ventilator, A Shadowless Gaslight, 106
Vestries, The London, and the Water Companies, 546, 644, 736, 788, 832, 1056, 1097, 1146
Vyrnwy Water Works, The (*see* Liverpool)
Wakefield Water Supply, 311, 736
Wallace, Dr., on the Pollution of the Clyde, 1200
Wallasey Gas Supply, 923
Wallingford, Opening of Water Works at, 871
Walsall Gas Supply, 860
Walthamstow, The Public Lighting of, 153, 1015
Walton-le-Dale Water Supply, 689
Wanklyn, Mr. J. A., on Sanitary Gas Making, 1205
Wantage Improvement Commissioners, A Claim against the, for Extra Services at the Gas Works, 877
Warminster Water Supply, 904, 1015
Warrington Gas Supply, 689, 879
Water Companies, Accounts of the Metropolitan, for 1884, 1199
Water Companies, Powers of the London, 204, 261
Water Companies (Regulation of Powers) Bill—
Editorial Comments, 384, 527, 571, 712, 763, 811, 855, 903, 1039
House of Commons Proceedings, 869
House of Lords Proceedings, 398, 537, 821, 868
Metropolitan Board and the, 776, 923
Mr. P. K. Birstal on the, 685
Select Committee of the House of Lords, 583, 725, 779
Statement by Metropolitan Water Companies on the, 546
The Amended Bill, 823
Water Consumers and the, 1097
Water Companies, Statistics of the London, 632, 667, 712, 737
Water Gas Lights, New Incandescent—
Mr. Dwight's, 735
Mr. Fahnehjelm's, 1209
Water Gas, The Poisonous Qualities of, 812
Water Pipes, Iron Bound Wooden, 151
Water Pipes, Shocks in, 628
Water Rate Disputes, 20, 21, 162, 445, 480, 496, 498, 586, 633
Water Storeage, 34, 1218
Water Supply, Decrease of the, 736
Water Supply, Neglecting to Provide Proper, 1095
Water Waste Inspection, 456
Water Works Clauses Act (1847) Amendment Bill—
Editorial Comments, 384, 479, 812, 855
House of Commons Proceedings, 344, 778, 821 869, 964
House of Lords Proceedings, 1186
The Amended Bill, 869
The London Vestries and the, 408
Watford Water Works Assessment, 122
Waverley Association of Gas Managers, Meeting of the, 688
Wellingborough Water Supply, 169, 217, 408, 1215
Wellington (N.Z.) Gas Company, 550
Wells, The Closing of Private, 100, 114, 148, 207, 299, 644, 970
Westinghouse's, Mr., Scheme for the Supply of Natural Gas at High Pressure, 103
West Bromwich Gas Supply, 688, 881, 1010
West Ham Gas Company, The, and the Connection of Gas Pipes to Services, 1145
West Ham Gas Supply, 288
West Kent Gas Company, Supply of Cheap Gas for Cooking and Trade Purposes by the, 302
West Middlesex Water Company—
Action against Mr. Coleman, 445, 995
Disputes as to Water Rates, 162
Half Yearly Meeting, 877
Half Yearly Report, 829
Richards's, Mr., Action against the, 497
West of Scotland Gas Managers, Conference of, in Glasgow, 488
Weymouth Gas Supply, 312
Whitchurch and District Gas Company, 397
Wigan Corporation Gas Supply—
Auditors' Reports, 681, 784
Extension of the Gas Works, 98, 116, 192, 257, 359, 506, 591, 644, 963, 1040
Finances of the Gas Department, 98, 116, 449, 550, 591, 681, 776, 784, 828, 869
Williams, Mr. H. Greville—
On the Synthesis of Trimethylamine and Pyrrol from Coal Gas; and on the Occlusion of Hydrogen by Zinc Dust, 15
On the Occlusion of Hydrogen by Zinc Dust and the Meteoric Iron of Lenarto, 485
Williams, Mr. M., on Sources of Water Supply under London, 308
Wimbledon Sewage Farm, Litigation in Regard to the, 112
Wimbledon, The Public Lighting of, 169, 506, 1093, 1204
Windermere Lake, The Condition of, 1014
Windsor Water Works, The Arbitration in Reference to the, 206, 496
Winship, Mr. G., on the Supply of Water by Meter, 969
Witz, M., on the Combustion of Explosive Mixtures Formed with Coal Gas, 1000
Woking Water and Gas Bill, The, 688
Wolverhampton Gas Company, The, 394, 790
Worcester Water Supply, 309
Workhouses, The Supply of Water to, 76, 125, 406, 547, 595
Workshop, The Use of Gas in the, 154, 193, 251
Worth, Alderman, on the Finances of the Nottingham Corporation, 1038
Wright, Mr. L. T., on the Luminosity of Methane, 435
Wybauw, M., on the Day Consumption of Gas, 58, 341, 430, 441, 535
York, The Public Lighting of, 70, 263
York United Gas Company, 202, 263
Zamora Water Works, The, 869
Zinc Dust, on the Occlusion of Hydrogen by, 15, 485